Lecture ON CLINICAL TEACHING.

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GENTLEMEN,—As I have the honour to deliver the first course of lectures from a new chair in this College, and as a special teacher of clinical medicine is still comparatively rare in English medical schools, it may be expected that I should say a few words, by way of introduction, as to the manner in which I propose to conduct the course.

And, first of all, let me tell you that it is not my intention to deliver clinical lectures, such as are commonly understood by the term, and such as you may have listened to elsewhere. Until a few years ago there was no teaching in any of our British medical schools which deserved the name of clinical; and, if I am rightly informed, there are still many medical schools where the sole clinical instruction consists in the delivery by the physicians and surgeons of an occasional systematic lecture upon some disease, with one of the hospital patients, whom the majority of the audience may never have seen, to serve as the text; while the student is left to pick up what practical knowledge of disease he can in walking the wards, and these, if he be idly disposed, he may rarely, if ever, enter. At the best, the ward visit usually consists in a dictation of notes by the physician, or in his calling attention to certain physical signs or symptoms in a case which by many students are unheeded, and by none are connected with the entire clinical history of the case. But medical students, in order to learn their work, must not only see the patients as they pass their beds, but handle them, question them, and use all their senses in finding out their symptoms for themselves.

In the study of all departments of natural science it may be truly said that what appeals to the senses makes a greater impression than that which appeals to the judgment and reason; and in no department is this remark more appropriate than in that of disease. To obtain a practical knowledge of disease and its treatment, the student must watch it in its various phases, he must learn to exercise every sense which he possesses—his eyes, ears, fingers, and even his nose—in its study; he must note the endless varieties which the same disease presents in different patients, and which he will find recorded in no other book than that of nature, and he must endeavour to discover the natural course of each disease, and how far this appears to be modified by treatment. In all cases he ought carefully to note the effects of the remedies employed.

It was one of the many merits of my esteemed master, the late Professor Syme, of Edinburgh, that he rescued the clinical teaching of surgery from the unsatisfactory condition in which he found it. The plan which he followed was this. A number of patients, derived partly from the wards and partly from the out-patient department, were brought in succession into the lecture-room, the prominent characters of their maladies were concisely described, and a few remarks were made on their diagnosis from those other diseases with which they were most apt to be confounded, and on the appropriate treatment. The students on the front benches were frequently invited to examine the patients for themselves.

It is clear, however, that this plan would not answer in the case of most medical diseases, the characters of which are more difficult of demonstration, and can only be thoroughly learned at the bedside. Those of you whom I have already had the pleasure of instructing are well aware that I have always insisted that clinical medicine cannot be taught by lectures, but must be learned in the hospital wards. You must not now draw the conclusion from the institution of this course of lectures that I have in any way modified my opinion. These lectures are intended to supplement, not at all to supersede, the instruction in the wards. Let me, then, very briefly detail to you the plan which, here and elsewhere, I have followed during the last eleven years, and which I still intend to pursue at our clinical conferences in the hospital wards; and in the next place show you how, in my opinion, these lectures can best supplement the instruction which you receive at the bedsides of the patients.

The plan, then, which we follow in the wards is this: those students who wish to take part in the clinical examinations are invited to give in their names to me, and each student so doing is examined in turn. At one time he is called upon to examine a patient who has just been admitted into the hospital. He is taught the art of eliciting by cross-examination a true account of the patient's previous medical history; he is taught never to stop short at what appears to be the first and most obvious conclusion as to the nature of the case, but to note the morbid phenomena in each physiological system of the body, the normal or abnormal physical conditions of the different internal organs, and the chemical and other changes in the various secretions. Having done all this, he is called upon to make a diagnosis of the malady, and a prognosis as to its probable course, to suggest a line of treatment, and, if necessary, to write a prescription. At another time he is questioned with regard to patients who have been already under observation, and whom he has seen examined at a previous visit. He is called upon briefly to recapitulate the facts made out at the former examinations, to note the changes which have taken place since the patient's admission into hospital, to reconsider when necessary the original diagnosis, to state the remedies which were prescribed, to note whether the results expected from these remedies have been produced, and to suggest the expediency of maintaining or altering the treatment. All these examinations and suggestions are, of course, made under the guidance and control of the clinical physician, to whom, in the course of every examination, many opportunities offer themselves for making clinical remarks.

By the plan which I have described, those students who were not present at the original examination of the patient are put in possession of the principal facts of the case, and the attention of the whole class is secured, as no student can be certain that he may not on a future occasion be called upon to undergo a similar examination upon the same case. Moreover, this plan teaches the student the art, so often wanting in medical men who may yet have a thorough knowledge of their profession, of conveying to a professional brother an accurate, and yet concise, statement of a patient's medical history and present condition. It has been a source of no small gratification to me to find that the plan of clinical teaching which I have now endeavoured briefly to describe has met with the unqualified approval of many distinguished members of the profession, from all parts of the world, who from time to time have done me the honour to accompany me in my clinical visits, and by whom I have been repeatedly assured that if students do not by this system speedily acquire a thorough knowledge of disease, the fault must be entirely their own. At all events, I think it must be generally admitted that some such system is calculated to impress clinical facts upon the mind of the student in a more sure and permanent manner than that by which the physician, however able he may be, makes a few remarks at the bedside of each patient, and then passes on to the next.

It is obvious, however, that for this plan to be successful, your cordial co-operation is required. It is necessary that a sufficient number of you should give in your names for examination, and that, having done so, you should make a point of being present at the clinical visits. Without your co-operation, the whole plan must collapse. And here I must observe that I have found rather a want of alacrity on the part of students to avail themselves of what I believe to be the best means of acquiring a practical knowledge of their profession. With a few brilliant exceptions, there has apparently been an unwillingness to run the risk of making a mistake in the presence of their fellows. Permit me to make a few remarks with the object and in the hope of removing this feeling.

1. The student who comes forward in the manner that I have described before the whole class is not only taught

himself, but he himself becomes a clinical teacher. His difficulties, his suggestions, and even his mistakes, become the means of teaching the rest of the class. The blunders you make show you how to avoid them for the future, and in the meantime furnish me with a capital opportunity for clinical remarks.

2. You are to bear in mind that the best and most experienced physicians are constantly making mistakes in examining patients and in the diagnosis of their diseases.

3. Although a mistake sometimes excites a smile or a laugh, the students who laugh most are usually those who do not take part in the examinations themselves, and are the least entitled to laugh.

4. It often happens that they who make the most mistakes at first in a few months turn out to be the most expert observers.

5. A time will come to most of you when, having finished your studies, you will endeavour to obtain public appointments or otherwise to settle in life and you will apply to your former teachers for testimonials of competency. It is a common belief among students that because they have gone round my wards they are fit to perform certain duties, and that I am bound to testify to this. Now, I ask you for a moment to put yourselves in the position in which I am often placed with regard to this matter. What can I certify from mere attendance in my wards? Nothing but the fact of attendance, which, by the way, I have no means of testing. I have no means of judging as to your medical knowledge or ability to practise your profession. It is of course quite otherwise with regard to those students who take part in my clinical examinations, and of whose names I preserve a record for subsequent reference; and I wish it to be known that I give no testimonials to students who have not been members of my practical class or who are not personally known to me.

6. Lastly, I would have you to remember that I can have no object in following the plan of clinical teaching which I have sketched but your good. Were I to adopt a different plan, I could see my patients in half the time which I now devote to them and you, and dispose of the time thus saved to my own advantage; while at the same time I would be able to investigate and record the phenomena of disease for my own instruction and benefit, from which by the system followed I am often debarred.

Having now shown you that for my teaching in the wards to be successful your co-operation is necessary, I trust that at the close of this lecture I shall receive the names of a large number of gentlemen willing to assist me.

One objection I have heard raised to the plan of instruction in the wards which I have described I must briefly refer to. It is said that the patients may not like it, and that they may think they come to hospital to be cured of their ailments, and not to be hammered and poked about by a number of young students. This objection would certainly be a very serious one if it had any real foundation, but I do not believe that it has. Most patients have the sense to see that their maladies, by the plan we follow, are being sifted to the bottom in a manner they could never hope for out of the hospital; and, indeed, it has repeatedly happened that patients who have not been examined by the clinical class, although receiving all the care and attention of ordinary hospital patients, have considered themselves neglected. Care of course is taken with regard to patients who are very ill that they are not subjected to any examination calculated to do them harm; and in every case a little tact on the part of the physician prevents anything being said likely to hurt the patient's feelings, such as the mention of the words "cancer" or "syphilis," while the opportunity is taken of throwing in from time to time a word of encouragement. I trust that it is scarcely necessary to remind you that when you take part in these examinations you ought to address the patients, not as if they were mere tools for your instruction, but in such a way as to make them feel that you sympathise with their troubles—in short, in such a way as you yourselves will wish to be addressed when, hereafter, you are perchance the subjects of some of the ailments from which they now suffer.

Now let us attend for a few minutes to what appears to be the plan best calculated for making these lectures supplementary to the teaching in the wards.

And, first, occasions will no doubt arise when I may consider it expedient to devote an entire lecture to the elucidation of a difficult case. Rare, or as they are sometimes called "good," cases are no doubt interesting to the advanced student, but they are not the best for clinical instruction; while most of you are merely commencing the study of your profession, and will learn more from cases of everyday occurrence than from such as you may never again encounter in practice.

Second. The plan which I shall mainly follow will be to bring before you very concisely the prominent features of a number of different patients, and to dwell particularly on the diagnosis and treatment of the diseases of which they are the subjects. Whenever it is possible the patients will be placed before you in the lecture-theatre, so that a larger number of you will have an opportunity of seeing them than will be always possible in the wards. Although these patients need not necessarily be resident in the hospital, most of the cases will probably have already been the subject of remarks in the wards, and it may sometimes appear that what I say in the lecture is a useless repetition of what I have already said at the bedside. But my experience of teaching has impressed upon me the necessity of repeating the same thing over and over again before many students take it in. A student will often remember a number of trivial details about a patient, but it requires practice to be able to seize and to store in the mind the essential facts. The great object of the clinical teacher should be to place himself in the situation of the students, to remember the difficulties which he himself encountered at their age, and to repeat what he has to say again and again, and to vary the way of putting it, until he satisfies himself that he is understood. The clinical teacher who does this will, in my opinion, be far more successful in what ought to be the great aim of all clinical teaching, than he who begins his lecture by reading to his class the minute details of some obscure case, and winds up with some ingenious speculations as to its probable nature.

Third. The clinical lecture will offer an opportunity of discussing the prognosis, which, in many cases, it would not be expedient to do in the presence of the patient.

Fourth. It will also afford an occasion for considering the mode of termination of the maladies from which our patients suffer, for reviewing their clinical history after they have recovered, and for determining in fatal cases how far the lesions found on post-mortem examination harmonise, or are at variance, with the observations made during life.

Fifth. I shall frequently avail myself of these lectures to point out to you the various morbid conditions which may give rise to the same prominent symptom, and the means of determining the particular cause in each case. I have a lively recollection of the difficulties which I experienced in doing this when I commenced practice, and of the little assistance I received from books. In many cases, indeed, the difficulty in determining the particular cause is great, or, perhaps, insurmountable, even to the most experienced among us; but it shall be my object to teach you how it may be best overcome. I purpose then, in different lectures, to bring before you the various causes of headache, convulsions, dyspnœa, jaundice, dropsy, hæmoptysis, the typhoid state, albuminuria, &c., and to lay down rules for your guidance in ascertaining the cause of these symptoms in the many cases which you will meet with in practice.

Sixth. I shall also, from time to time, in these lectures endeavour to teach you the best methods of examining a patient, and of determining the physical changes effected by disease upon the different internal organs, such as the heart, lungs, liver, &c., and of recording these and other morbid symptoms. During the present session I hope to give a lecture upon case-taking.

You will see then that, while your knowledge of disease and its treatment will be mainly obtained in the wards, it will be quite possible in these lectures to convey to you information which cannot be given at the bedside, and also which you are not likely to obtain from systematic lectures on medicine.

In what remains of this lecture I shall bring before you the cases of two patients now in the wards.

1 *Lead Palsy.* The first case is a good illustration of one of the effects of lead-poisoning.

Results of lead poisoning are—1. Colic. In all cases of colic keep in mind the possibility of its being due to lead. 2. Paralysis. 3. Epileptiform attacks. 4. Blue line along

margin of gums. How explained? 5. Gout and albuminuria.

Causes of lead-poisoning various. Occupations. Some persons preternaturally susceptible to lead, so that causes may be very slight; examples.

Characters of the paralysis due to lead.—Attacks first the muscles supplied by radial nerve, the extensors of hand, fingers, and thumb. Important bearing of this fact upon mode of action of remedies in disease; certain drugs show a predilection for certain tissues and organs of body. Muscles of right forearm affected first and most. Dr. Todd's explanation of this. Observations on left handed persons. Next to extensors of forearm and thumb, triceps and deltoid are implicated; occasionally muscles of lower extremities attacked, or paralysis may become general. Muscles named lose their power of contracting and then waste; deformities resulting from this wasting. Wasting not due to degeneration of muscular tissue. Electro-contractility lost, but sensibility retained.

All these characters well marked in patient exhibited to class. William W——, twenty-six, a brass-founder, admitted Sept. 21st. Colic and paralysis of extensors of forearms three years before. Paralysis lasted for nine months, but got well, and patient resumed his work. Six months ago colic and paralysis returned. Patient gave up employment, but paralysis increased. Never had gout: but urine contains a little albumen, and sp. gr. 1010.

Prognosis in lead palsy usually favourable; but bad in proportion to—1. Duration. 2. Wasting of muscles. 3. Failure of remedies. Our patient already considerably improved under treatment.

Treatment:—1. Prevention, cleanliness, sulphuric acid. 2. Change of occupation after paralysis declared; this ought to be permanent. 3. Elimination by (*a*) purgatives, (*b*) iodide of potassium, mode of action; (*c*) sulphur baths, two ounces of sulphide of potassium to fifteen gallons of water. 4. Nervine tonics and iron, nux vomica, galvanism—interrupted current to individual muscles, friction, and shampooing.

The next case which I shall mention to you is one of

2. *Gangrene of foot following enteric fever*—not very common. Dr. W. W. Keen, of Philadelphia, in a valuable memoir "On the Surgical Complications and Sequels of the Continued Fevers," recently published,[1] referring to my work on Fevers, says that, although I have seen a few cases, I do not refer to a single English post-mortem. This sequel of fever, however, is more common in Britain than might be inferred from this quotation. I have seen a considerable number of cases, and many will be found in English medical literature.

Gangrene in fevers from two causes—viz.: 1. Pressure, causing "bedsores" on sacrum, trochanters, heels, ankles, elbows, and occiput. 2. Thrombus in arteries. This form, known as "spontaneous gangrene," is most common in feet, but may occur in hands, nose, tips of ears, penis, vulva, or soft parts in front of chest or abdomen. Case quoted from Patry, where a thrombus in external carotid artery caused gangrene of external ear, which spread to forehead, cheek, and eyelids. The same cause may lead to embolic masses in lungs and spleen, and to necrosis of bones in the course of fevers. These results are most apt to occur in persons of very weak circulation, or who have been reduced to a state of great exhaustion by a severe or protracted attack of fever.

Thrombi may also form in the veins (particularly the left femoral) as a sequel of fever; but here the result is œdema, not gangrene. Resembles the "white leg" of puerperal women.

The local signs of gangrene from arterial thrombus are usually preceded by great pain in the part, but not invariably. It was not so in our patient. Great pain usually attends the formation of the line of demarcation, and of course no pulsation can be felt in the artery leading to the gangrenous part.

As to treatment, I have in some cases found the local application of cotton-wool sprinkled with a few drops of turpentine avert what appeared, from the coldness and lividity, to be an impending gangrene of the foot or nose; but most commonly, as might be expected from the cause, the gangrene advances up to a certain point, notwithstanding all that is done. A line of demarcation ultimately forms, and, as soon as this is well marked in a limb, amputation must be had recourse to. In the meantime, opium, often in large doses, is required to relieve pain and procure sleep, and quinine, with a moderate amount of alcoholic stimulants, is called for to maintain the patient's strength.

[1] The Toner Lectures, published by the Smithsonian Institute. Washington, 1877.

These remarks suggested by case now in wards. Charles C——, aged thirty-four, admitted July 23rd; ill three weeks; off work one week. On admission: Pulse 120; temperature 102·2° to 104·3° F. Rose spots; slight diarrhœa; trace of albumen in urine.—27th: Delirium and stupor.—31st: Ditto with subsultus; urine in bed; tongue dry.—August 2nd: Fresh spots.—5th: Delirium violent; attempts to get out of bed.—7th (thirty-sixth day): Temperature 103·7; cold bath. This reduced temperature for a time and quieted nervous symptoms, but pyrexia continued for another week. —14th (forty-third day): Temperature normal. — 16th: Temperature keeps normal, but still some delirium and some hæmorrhage from bowels; ice to abdomen. About this time there was found to be no pulsation in left radial and brachial arteries; but cessation was temporary, and no gangrene resulted.—20th (forty-ninth day): Right leg and foot cold and of a waxen aspect.—21st: Livid patches on dorsum of right foot; no pulsation in right popliteal and femoral arteries; much pain in right leg. After this gangrene continued to spread from right toes along foot till about September 1st, when it ceased to spread, and line of demarcation commenced four or five inches above ankle. At first the process was unattended by pyrexia. From Aug. 30th to Sept. 6th there was slight pyrexia, but temperature never exceeded 100·7°. On Sept. 4th it was found that pulsation was restored in right femoral artery, but not in the popliteal. This was probably due to a displacement of the plug downwards. Simultaneously with this there was great pain and some swelling in popliteal space; and on Sept. 7th and 8th there was high fever, the temperature reaching 104·2°. There was also a painful swelling of the glands in right groin; but no rigors, and no indication of secondary mischief in internal organs. On Sept. 9th and 10th temperature fell to 102·2°, and after this pyrexia abated. —Sept. 24th: Extreme emaciation; no pyrexia. Line of demarcation well formed; great pain in leg above this, requiring morphia to induce sleep. — 26th: Leg amputated below knee by Mr. Clutton.—Oct. 5th: So far patient doing well.

Introductory Lecture

TO THE

COURSE OF SURGICAL LECTURES

To be delivered in the Session of 1877–78,

BY HENRY SMITH, F.R.C.S.,

PROFESSOR OF SURGERY AT KING'S COLLEGE, AND SURGEON TO KING'S COLLEGE HOSPITAL.

GENTLEMEN,—In addressing you from this place for the first time I hope it is not necessary for me to assure you that I have a very deep sense of the responsibility of my position and of that which is required at my hands. This feeling is especially enhanced when I reflect that I have to follow in the footsteps of my old friend and colleague, John Wood, who has held this chair for six years, and whose career as a teacher has been followed by the greatest success. It is not necessary for me to do more than refer to the conscientious faithfulness and unwearied ardour which marked the character of my immediate predecessor as a teacher both in this chair and in the wards of our hospital. I know that all those who profited by his lessons have thoroughly appreciated the earnestness and fidelity with which he has at all times urged upon you the important truths with which his own mind is so well stored, and I feel sure that it would have been a subject of congratulation if you could still have had the advantage of his teaching within these walls; but it is otherwise ordered, and I must congratulate you on the fact that the usefulness of my distinguished colleague and friend

will only be transferred to another place, and will be carried on only in a different direction. Had it not been for the knowledge that my labours would be rendered considerably easier through the assistance rendered in the teaching of surgery by my immediate predecessor in the chair, and by a gentleman who comes to us with so well-earned and world-wide a reputation as that of Joseph Lister, I should have shrunk from the task imposed upon me; but knowing as I do know that you will only be too eager to attend to the lessons of these two distinguished teachers of clinical surgery, I feel that the difficulties surrounding my position will be materially lightened, and that both you and I will receive mutual profit and assistance.

All of you are aware of the event which has been productive of the changes in our surgical teaching, and it is impossible for me to pass this over without some especial reference to the memory and character of the distinguished surgeon who closed his earthly career since the period which marked the opening of the last winter term. You can readily understand me when I tell you that greatly as I feel my responsibility on filling the post held by my immediate predecessor, the task undertaken by me becomes much more important, and I may say more sacred, when I bear in mind that William Fergusson occupied this chair for a period of thirty years. During this time he taught whole generations of pupils the principles and practice of his art, and by that teaching within these walls, and by his example and practice in the wards of our hospital, he raised the surgical character of King's College to a point beyond which I hesitate not to say no other institution in Great Britain has progressed. Born and educated at a period when surgery was going through a great change, and when, in Edinburgh especially, a vast impetus was given to the more practical element of his art, William Fergusson, who had made himself well acquainted by assiduous study with that groundwork of all good surgery, practical anatomy, fell under the influence of men like Liston and Syme, who had raised the Edinburgh school of surgery to the highest pitch, and very naturally in a fair spirit of competition, he determined if possible to rival these celebrated men, and how well he succeeded in his task I need not tell you. He was already making a great reputation in Edinburgh when, on the foundation of our hospital, he was tempted to take advantage of the vacancy in the chair of surgery and the surgeoncy at this institution. Although but a young man, he had devoted himself so assiduously to the cultivation of surgical science that he was enabled to bring to his duties a large amount of experience which he had gained. Gifted with an extraordinary amount of mechanical skill, he in a very short time after his arrival in London made a great impression by the manner in which he performed the most difficult operations; more especially was this seen in cases of amputation, lithotomy, and the removal of large tumours. In these days there was no such thing as anæsthesia from chloroform or ether; and it was of the utmost importance that operations of magnitude should be conducted with rapidity and little loss of blood, and in these particulars Fergusson shone conspicuously. For instance, it has occurred to me to assist him in removing the whole of the upper jaw, before the days of chloroform, and it was wonderful to witness the dexterity and rapidity with which he would complete this then formidable operation. Gifted as he was with this extraordinary manual skill and facility of wielding instruments, it is not a matter of surprise that their possessor should seek for and delight in opportunities of making use of the means which were afforded him in the wards of King's College Hospital. His rapidly rising reputation, and the death of his rival, Robert Liston, increased these opportunities to a great degree, and for many years there were witnessed in the theatre of our hospital feats of surgery which had either never been seen elsewhere, or in their excellence had never been surpassed.

Fortunately for his own reputation, for the character of King's College, and for British surgery generally, Fergusson, with this tendency to excel and display his talents in the operative department of his art, was eminently imbued with what he himself was pleased to call "conservative surgery"—a term happily chosen, and conveying to the mind what should be the proper aim and object of the surgeon in dealing with the diseases and injuries of the body which more especially require operative treatment. Hence it was that the resources of his eminently practical mind led him to cultivate as much as possible the preservation of parts and the restoration of tissues which might either be useful or ornamental to his patient, and yet at the same time to remove all disease and remedy any congenital or acquired deformity. Early in his career he cultivated this special department of surgery, and, as years went on and his experience increased, the name of William Fergusson became associated as closely with conservative surgery as it was with King's College Hospital itself; and at the same time that the headship of British surgery was worthily accorded to him, he was by general acclamation hailed as the one who had brought the conservative part of his art to the perfection it had attained; and it is only right and becoming of me on such an occasion as this, and when we have been so recently lamenting his death, to point out to you some of the chief features of his work in this direction.

"Felix qui rerum potuit cognoscere causas" was the motto which might well have been inscribed upon Fergusson's escutcheon; for, although he was so eminently practical, and his main object was—as, in fact, it ever must be with the surgeon—to deal with results and the interferences with Nature's laws, his mind was always intent upon seeking for the causes which would influence, either for good or evil, the treatment which would have to be carried out. Nothing illustrates this better than his investigations on the subject of that interesting and troublesome deformity cleft palate. Fergusson at an early period of his career had made a very careful and beautiful dissection of the parts concerned in this deformity, but it appears that he made no use of the information he had hereby gained until the year 1844, when, having had his attention called to the want of success which followed the operation in his own hands and in that of other surgeons, he renewed his acquaintance with his dissection, examined it carefully, and demonstrated to his entire satisfaction that the want of success hitherto attending the surgeon in his attempts to close the gap was due to the action of certain muscles which exerted their influence upon the cleft and caused their separation after the edges had been pared and brought together. A flood of light was thus thrown upon this difficult subject, and acting upon the convictions which his careful investigations had produced, he by an ingenious operation divided the muscle which had the most powerful influence over the sides of the cleft—viz., the levator palati,—and then brought the edges together. The result of this proceeding was most successful, and instead of constant failure after the operation of staphyloraphy, as it is termed, there was almost continuous success, and in the hands of Fergusson and of others the treatment of this troublesome deformity has been deprived of nearly all its difficulties and uncertainties by the simple application of means conveyed to us by the ascertained laws of anatomy and physiology. This beautiful and useful discovery was at once accepted by the majority of surgeons, and his reputation was greatly enhanced by it, and, as I have expressed it elsewhere, I repeat the opinion here, that had he done nothing else for surgery than this, or added further to its resources, he would have been worthily hailed as one who had greatly improved his art. Moreover, Fergusson had now clearly proved his title to the position of a careful thinker and original inquirer, and thus he added much to the estimation in which he was already held by those who had the opportunities of witnessing his matchless skill and his extensive knowledge of the diseases and injuries with which the surgeon has to deal.

It was nearly at the commencement of his career at King's College that he matured his views, as just related, in reference to cleft palate, and ever after he took an extraordinary interest in everything relating to this deformity, notwithstanding that for many years his attention was being continually attracted to cases of surgery of all kinds and of the greatest gravity. And, curiously enough, his very last communication to the profession consisted of a paper in which he gave his views on a method of treating the cleft or fissure in the hard palate which some little time previously he had devised and tried. This consisted in splitting the bone on either side of the gap, and then bringing it together by means of threads passed into holes drilled through the edges. This mode of treatment has been followed by the best success in the hands of him who devised it and of those who have adopted the plan in question. It was almost impossible to effectually close a gap in the hard palate; now it is comparatively easy to do so by the method

suggested by Fergusson, and, curiously enough, described some years ago by Dieffenbach, but without the knowledge of my late distinguished friend, who must therefore have the credit of introducing the method into British surgery.

Eminently conspicuous amongst those who cultivated and advanced conservative surgery in the truer sense of the word, he was continually exerting his mind in this direction, and this was seen in his teachings in this place, in his practice at the bedside of his patients, and in the operating theatre of the hospital, as well as in the contributions which from time to time he made to the journals and societies connected with our profession. In the year following that which saw the advent of his views on cleft palate, another great addition was made by him to surgical practice when he advocated and performed the operation of removing the head and neck of the thigh-bone in a case of incurable disease of the hip-joint. He had long pondered upon the propriety of attempting to save life by the removal of the femoral portion of the hip-joint in instances of disease where the morbid changes had progressed to the last stage, and had left no hope beyond a lingering and painful death. He had read of the suggestion of Charles White, of Manchester, who more than half a century previously had advised the operation, and he had not only read the particulars, but had seen the specimen of the parts which had been removed after death from the body of a man on whom the late Mr. Anthony White had operated with great success five years previous to the patient's death. This case, together with Charles White's suggestion, had been entirely forgotten, and no one thought of interfering actively with these bad cases of hip disease until Fergusson, in 1845, again suggested that surgery might do something more, and showed most triumphantly what could be done by his celebrated operation at King's College Hospital, which turned out to be a complete success, and which made a great impression upon the profession, and, I may truly say, gave a completely new aspect to the treatment of those cases of hip disease hitherto deemed incurable; for, although at first considerable opposition was raised against this laudable step in advancing conservative surgery, the success attending it in the hands of Fergusson and others was so great that ere long the operation of removing the upper end of the femur became recognised in surgery, and not only so, but some have gone so far as to recommend it in cases where, in order to get away the entire disease, it is absolutely necessary to remove the floor of the acetabulum as well.

Emboldened by his success in this quarter, and more than ever intent upon the improvement of practical and conservative surgery, Fergusson directed his attention to the treatment of another great articulation—viz., the knee. He had long pondered over the possibility of substituting a more rational and less humiliating plan of treatment for the terrible mutilation of amputation through the thigh, which was the only practice in cases of incurable disease of that important joint. He had made himself familiar with the celebrated case of Park of Liverpool, who many years previously had removed, with the utmost success, the entire knee-joint, in a patient afflicted with incurable disease; and he saw no reason why the same treatment should not be applied to the knee as had been so successfully adopted in the instance of the elbow. In July, 1850, he carried out his design in the theatre of King's College Hospital. Unfortunately the patient died from the effects of the operation, and Fergusson was exposed to severe criticism for daring to reintroduce into surgery what was supposed to be an unjustifiable proceeding. A man with less determination, and one who had not well considered all points connected with the subject, would have dreaded to repeat the experiment, as really it may at that period have been considered to be; but, nothing daunted, he performed the operation a second time, luckily with success both as regards saving life and preserving a useful limb. From this period amputation for disease alone of the articulation became a thing of the past; and although Fergusson, and those who were bold and honest enough to adopt an unpopular mode of treatment, were assailed with the most severe and unwarrantable criticism—in fact, this went so far that, in a review in a leading medical journal, this method of dealing with incurable disease of the knee was termed "mountebank surgery,"—this operation of excision of the knee-joint became firmly established amongst surgeons, and it was a source of infinite gratification to Fergusson to find that his efforts to do away with the great mutilation of amputation through the thigh for disease of the knee-joint had been crowned with success.

I might refer at length to several other illustrations of his cultivation of conservative surgery, such as his admirable method of removing the upper jaw through the most limited incisions, entirely suggested by himself; to his remarkably skilful and successful means of dealing with the most severe cases of harelip and deformity about the mouth and nose; and to what may be termed his wonderful employment of instruments in removing necrosed bone; but I will content myself on this occasion with my reference to the three subjects with which he will be associated so long as British surgery lasts. And although he laid the foundation of his knowledge at another and distant school, I am proud to record the fact that it was whilst he was teaching in this chair that he perfected this knowledge and brought about those splendid results which immortalised his own name and raised the surgical character of the school of King's College to the highest pitch. I have dwelt prominently upon that aspect of Fergusson's character which showed more especially in what way he practised and excelled in his art and how it was that his name became so intimately associated with the progress of surgery, and particularly of that kind of surgery which has come to the front during the last thirty years, but I must not omit to point out to you that our late distinguished friend possessed all those qualities which, not so capable of making impression upon ordinary observers, yet are nearly as valuable in their way as his marvellous skill and tact in wielding the resources of his art. He was gifted with a wonderful memory, and his powers of observation were most extraordinary. Nothing in the daily occurrences of life escaped his ken, and hence it was that when at the bedside of his patient, and his attention was brought fully to bear upon a case—especially a case surrounded with difficulties,—he would allow nothing to evade his observation, and although employing few words, he would so make use of his eyes and hands that neither the medical attendant nor patient himself would have need to say much, for his enormous practical experience would generally bring to his mind some case which would throw a deal of light upon the one before him. Paradoxical as it may appear, in this very prominent feature of his character as a surgeon, which was productive of so much benefit to his patients and himself, there lay the elements of his deficiency as a teacher at the bedside, for trusting, as he did, in his powers of observation, and continually telling his pupils that they must make use of their own eyes, he forgot that the majority require that their faculty for comprehending facts of great importance must be directed and assisted. Whilst every one must admit that his teaching was pregnant with the best results in furthering the advance of surgery and the reputation of the College, I believe he would have been even more useful in his generation if he had been less reticent, and had not confided so much in the observing faculties of those about him. This, however, was but a minor fault when we come to consider the debt of gratitude we all owe to him for his splendid contributions to surgery. You will pardon me, I am sure, if I have appeared to you, on this occasion, to dwell at too great length on the career of Sir William Fergusson, but his name filled so large a page in the history of surgery during the last thirty years, and of this College as a teacher in these walls, that I could not do otherwise than refer to him as a great example for all to imitate and follow; and although it cannot be expected that such excellence as he attained can be acquired by many, still it behoves us all to try our best to imitate it. And in connexion with this reflection, gentlemen, I will call to your remembrance two grand and memorable stories of which all Englishmen are justly proud. You have, during the last year, read the particulars of the calm and heroic daring which animated those once obscure Welshmen who, taking their lives in their hands, and working under terrible and uncertain conditions, by dint of a most enduring courage and persistent calmness, which have never been surpassed in the history of the world, rescued their fellow-men who had been entombed in the darkness of the mine for many days, from a horrible death. Now, I daresay it is given to few occupied in the same calling to be able to show such calm and devoted courage as did these splendid fellows, but still

it is in the power of all to try and emulate a deed like this, and come as near as possible to such perfection of bravery. Again, you have all read of that famed story where, on the morning of October 21st, Nelson showed with what might and majesty he acted on that great day, when the destinies of his country were, humanly speaking, committed to his care. You have read how, bearing down "in pride of place" upon the enemy, this great seaman singled out his antagonist, and with a combination of masterly skill and calm impetuosity, although exposed to a terrible fire, which destroyed numbers of his men, he would not allow a single shot to be returned until he brought his ship to close quarters, when, with one single broadside, he crippled his opponent. It is not given to many, in like circumstances, to be able to act as Nelson did, but it is in the power of all to admire his magnificent heroism and judgment, and endeavour to emulate these great qualities. In like manner, gentlemen, whilst I refer you to William Fergusson as one of the most brilliant surgeons who ever adorned our profession, it is only to be expected that such matchless skill and power of wielding the resources of his art as he possessed can be met with very rarely, but still we can each of us try our best to emulate his example, and by so doing shall most worthily honour his memory, and act justly towards our *alma mater*.

I must now briefly draw your attention to the special subject which it is my duty to teach you, and to the course of lectures committed to me. Many of you are sufficiently acquainted with the history of surgery to know that during late years a great improvement has taken place both in the knowledge of the principles and in the practice of our art; and if it was difficult to learn surgery thirty years ago, it has become much more so of late, in consequence of the great additions to the knowledge of our art. Still the same requirements are needful for those who have to learn, and these consist mainly in careful observation, and in unwearied use of those numerous and valuable opportunities which will be afforded to you. Bear in mind this truth, that in order to become a good surgeon a man need not be a genius or possess eminent talents; for most of the phenomena which are presented to the surgeon are of an objective character, and can be appreciated comparatively easily. But bear this equally in mind, that the qualities necessary are those which vastly improve by repeated and unwearied cultivation. The power of observing facts and attributing them to their right causes; memory; the use of the special senses; and, mainly, the employment of that most useful of all surgical instruments, the human hand,—are what is required, and, fortunately, are all and each capable of the greatest improvement by cultivation. John Hunter, it is true, was one of the great geniuses which have from time to time appeared in the world; but everyone who is acquainted with his career and work will not fail to see that the one great feature in his character which was productive of such vast results was his wonderful power of observation and unwearied devotion of his time and thoughts to whatever was before him.

It will be my duty and pleasure here to give to you the material for thought and observation, but you must remember that I cannot teach you surgery in one sense of the word. I shall merely point out to you the road you have to travel, and will mark for you the various sign-posts which will lead you on to the end of your journey—namely, a knowledge of the principles and practice of our art. Being assisted in this manner you will find your progress comparatively easy if you will but make use of the faculties you possess. I trust you will be able to gain much by attendance upon these lectures, but there are many aids you must use—the recorded experience of surgeons of previous generations and those now living, the diligent examination of pathological specimens in our museum, and, above all, and without which others are useless, the continual attendance at the hospital. I must beg to impress upon you the importance of attendance upon the out-patient department, where you will get acquainted with the everyday cases of surgery, and where you will be able, under the auspices of such careful teachers as our present out-patient surgeons, to pick up an infinite amount of knowledge which, if properly used and thought over, will be of great service to you as you get more advanced. I have a special claim to urge upon you the advantages of attendance upon the out-patient department, as I had charge of it myself for fifteen years, and I was amply rewarded for the bestowal of so much time by seeing that all those pupils who distinguished themselves in their career were the most assiduous in their attendance on this department. I know it is somewhat the fashion to advise young men not to go near the hospital during their first year, and doubtless those who give this advice have good reasons for doing so; but I differ from this advice. The aim and object of all your studies is the treatment and cure of disease, and I think that the sooner you begin to make yourselves acquainted with its varied forms the better. The younger you are the more impression is made upon you, and the more truly does your memory serve you. When I was first a pupil we had the good fortune to have attached to our out-patient department two men who have since attained a world-wide reputation—John Simon and William Bowman; and being very early in my career connected with the former, whose power of imparting knowledge was equalled only by his facility for obtaining it, I learned the most valuable lessons, which have been of the utmost use to me in my career, and it is with much pleasure I take this opportunity of saying how much I am indebted to John Simon. There is one thing I must warn you of in your hospital attendance: do not be attracted too much by what are termed, and properly so termed, the great cases of surgery. Do not by any means neglect them; they will require and repay the most careful investigation, but do not neglect the less showy and more common cases of surgical practice. Make use of all the advantages which will be afforded you both here and at the hospital of using those mechanical appliances which are the everyday necessities of surgery; and let me beg of you especially to make use of the opportunities of learning pathology, and seeing the varied results of morbid action afforded you by the post-mortem theatre. This is a feature of our education which is not sufficiently appreciated. There is one thing in particular I must warn you of, and that is not to look upon surgery as the mere work of the hand. There has always been a tendency this way, and I am inclined to think that the introduction of anæsthetics has somewhat fostered an undue yearning for operative surgery; but bear in mind that a vast number of surgical maladies and injuries are best treated without the use of the knife, and that one of the chief objects of the surgeon is to do his utmost for the prevention of operations. And as illustrations of the great success which has resulted from these efforts, I may allude to the modern treatment of aneurism by pressure, and to the greatly improved treatment of compound fractures and of stone in the bladder.

Above all, gentlemen, and in conclusion, let me impress upon you the truth that surgery is only a part—a great part, it is true—of the healing art; and therefore you must not be content with learning this alone. You must bear in mind that a man cannot be a good surgeon without having a familiar acquaintance with the sister art of medicine. You may, it is true, learn surgery in a way, but you will never be able to practise surgery properly if you have not studied medicine with care. Therefore I beg of you, even those of you who intend to confine yourselves hereafter to the practice of surgery, to devote a considerable portion of your time both to the literature of medicine and to attendance upon the physicians at the hospital. I might bring forward many instances, if I chose, to show you how dangerous it is, both as regards his patients and his own reputation, for a surgeon to undertake the serious cases which fall under his care without a careful study of the morbid phenomena which are associated with medical diseases, strictly so called; but as you proceed with your studies, you will not only have this truth enforced upon you by others, but you will find it out for yourselves, and thus avoid the commission of errors which would seriously injure your own character and damage the reputation of the school where you have received your professional education.

BEQUESTS, &c., TO MEDICAL CHARITIES. — Mr. Charles Joseph Samuel Semon, of Bradford, Yorkshire, bequeathed £500 to the Infirmary, £500 to the Fever Hospital, and £250 to the Eye and Ear Infirmary, all at Bradford.—The General Hospital, and the Queen's Hospital, Birmingham, have each received £100 under the will of Mr. John Barwell.

CLINICAL REMARKS ON RHEUMATISM.

BY JULIUS POLLOCK, M.D., F.R.C.P.,
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UNDER the term "rheumatism" several distinct and different diseases have been grouped together, and in many instances described and treated of as if they were only varied manifestations of the same morbid condition. No doubt there is a considerable resemblance—a strong family likeness—between the several forms of what we call rheumatism, but when carefully examined many differences will be found. Leaving out of the question rheumatoid arthritis and other diseases of doubtful rheumatic origin, let us contrast the two acknowledged forms of the disease, the articular and the muscular. The former is a disease of early adult life, more or less acute in character, with a tendency to get well in a certain time. It not only attacks the synovial membranes, but frequently involves one or more of the somewhat similar serous membranes, especially those of the heart. It is not preceded nor followed by muscular rheumatism; the two disorders in no way run into one another; on the contrary they occur in a different class of persons, and a predisposition to the one is rarely accompanied by a predisposition to the other. Muscular rheumatism is for the most part a disease of middle or advanced life; it is commonly chronic in form, and if left to itself may continue for an indefinite period. The parts attacked are not really the muscles, but the white fibrous tissue that forms their aponeuroses and tendons, the different fasciæ and ligaments. There is no tendency whatever to heart mischief, and life is not threatened, though it may be embittered, by the disease. Difference of occupation, errors in diet and mode of living, scarcely seem to affect the liability to articular rheumatism, though they are strong predisposing causes in the muscular form. Thus it will be obvious that, although, to save the very objectionable plan of giving new names to familiar disorders, we still apply the term rheumatism to both diseases, the articular and muscular varieties, are quite distinct and separate, and should be treated as two different complaints. In this instance precedence will be given to the former, and we shall at once commence the consideration of its phenomena.

Articular rheumatism occurs notably in two forms—the acute and the subacute. To these we may add a chronic form, of which more by and by. The acute and the subacute (when at all severe) are often spoken of as rheumatic fever. The disease, when left to itself, or when uninfluenced by remedies, has an average duration of pretty nearly six weeks, and, as far as the mere affection of the joints is concerned, tends to complete recovery. Life may be threatened, however, by the immediate or remote effects of heart disease, when that organ is implicated, or by the supervention of hyperpyrexia.

The causes of acute rheumatism, and of the subacute form also, may be divided into predisposing and exciting. The most important predisposing cause appears to be the presence in the blood of a morbid material, the result of some peculiarity in the patient, which is often inherited, and which leads to the development of the disease upon the application of the exciting cause. In some persons there is such a strong tendency to articular rheumatism, that the slightest exposure to wet and cold, or to cold only, will bring on an attack, and in some cases no exposure at all can be traced. Such individuals generally get an attack of the disorder early in life, and suffer from acute or subacute rheumatism at intervals, until, if they live long enough, age gets rid of the predisposing cause. Other persons are much less liable to rheumatic fever, and only the most disastrous circumstances, the strongest application of the exciting cause, will produce the disorder; whilst a large number of the community escape the disease altogether, no matter to what amount of wet and cold they may be exposed.

Some authorities place a previous attack amongst the predisposing causes, but I think without sufficient reason. The previous attack simply shows the liability to rheumatism—indicates the diathesis of the individual; and that it should be followed by other attacks illustrates the "*post*" rather than the "*propter*" *hoc*. A tendency to articular rheumatism exists in certain persons, just as there is a tendency to snow-storms in the winter, or gales of wind at the equinoxes. But we do not think of one snow-storm or one gale of wind that it predisposes to others, but merely that they indicate the presence of certain proclivities in the weather; and so with one attack of rheumatism.

Youth is reckoned among the predisposing causes of articular rheumatism, and probably with reason; for the *materies morbi*, the existence of which in the blood is necessary to the production of the disease, appears to be present in most cases only during that time of life which is included between the period of puberty and middle age. No doubt acute rheumatism sometimes occurs in very young children, and sometimes in old persons, but I speak of the rule. In some diseases, measles for instance, youth *appears* to be a powerful predisposing cause, but in reality why measles almost always occurs in childhood is because of the universal liability to the disease, and the widespread sources of infection. Older persons do not get the measles simply because they have had the disease early in life, or more rarely because they are proof against it. The accounts of various outbreaks of measles in out-of-the-way and comparatively isolated portions of the globe, from which the disease is now and then absent for years, show that *mere* age is no protection. The old are as liable to the disease as the young in the absence of a previous attack.

Sex, occupation, errors in diet, do not seem to exercise much influence on the production of articular rheumatism, but loss of health or debility in any form certainly predisposes to the disease or tends to bring the latent predisposition into activity.

The most important exciting cause, perhaps the only one worth considering, is exposure to cold, and especially to cold and wet. Sleeping in a damp bed with insufficient clothing, remaining in wet clothes, sitting in a draught of cold air after being heated, getting a "chill" in any way, will often induce acute rheumatism in those who are predisposed to it. Possibly it is the check thus given to the eliminating functions of the skin that determines an attack of the disease. The climate of the temperate zones seems more productive of rheumatism than the colder or hotter regions of the world; for it is in the temperate zones that we get the combination of wet and cold which is so fruitful of the disorder.

Acute articular rheumatism generally begins with symptoms of having taken cold, and these are quickly followed by the appearance of inflammation in one or more of the joints. In some cases, however, the joint affection occurs simultaneously with the constitutional symptoms. The inflamed joint is red, swollen, painful, and very tender; so that the least pressure gives great pain. As a rule, the larger joints are more commonly affected—the knee and ankle, elbow and wrist; less frequently, the shoulder and hip; but in many cases the smaller joints, those of the hand and fingers, participate in the disease. Sometimes one or two joints only are attacked, sometimes a large number, and it is a remarkable feature of the disorder that the inflammation occasionally rapidly disappears in one joint and as rapidly appears in another. This is spoken of as metastasis.

Along with the joint mischief there is, in severe cases, considerable constitutional disturbance, indicated by an increased temperature, a full rapid pulse, a hot skin, a thickly coated tongue, constipated bowels, and scanty, high-coloured urine, often very acid, which deposits a copious cloud of red lithates on cooling.

Another symptom, one that is rarely absent, is a constant drenching sweat, bathing the patient from head to foot, and having a peculiar acrid odour, which is very characteristic of the disease. In most cases this sweat is intensely acid, turning blue litmus paper to a bright scarlet, but when it is very profuse this great acidity is less marked. As I have said, the tongue is generally thickly coated, the breath often offensive, and the appetite nil. With few exceptions, the mind is entirely unaffected, and delirium is rare, but the pain of the inflamed joints sometimes deprives the patient of sleep. The slightest movement when the articulations are severely affected produces great agony, and the sufferer lies helpless, paralysed by pain.

It would be well if the description of acute rheumatism could end here, but, unfortunately, the disease often involves other and important structures. Serous membranes are closely allied to synovial in their formation and functions, and share with them the liability to be attacked by rheumatic inflammation. The pericardium, the endocardium, the pleuræ, the peritoneum, the meninges of the brain, may, one or more of them, be involved in the disorder, but the first two far more often than any of the others, so much so that some German authorities look upon cardiac mischief as the very essence of acute rheumatism. Be this as it may, there is no doubt that peri- or endocarditis, or both, are very frequently associated with rheumatic fever, and more especially when it occurs in young persons. The earlier the age at which the disease makes its appearance the more likely is it to be accompanied by cardiac mischief, which would seem to show that the implication of the heart is due, at any rate in most cases, to a strong rheumatic tendency. When the heart is involved the constitutional disturbance is generally much aggravated, and accompanied by symptoms of cardiac inflammation, into which, however, I do not propose here to enter, since the phenomena are the same, whether the carditis be the result of rheumatism or any other cause, and this may also be said of any of the other serous membranes when they happen to be involved. Rheumatic meningitis is, happily, rare, and I have only seen one well-marked case of it, which proved fatal.

After a while, varying with the severity of the disease and the effect of the remedies employed, acute rheumatism tends to get well: the inflammation in the joints gradually subsides, the fever abates, and (if the heart have not been implicated) the recovery is generally complete; for, beyond some temporary relaxation of the synovial membranes and weakness of the joints, no ill effects are left behind. It is otherwise, however, when the heart has been affected, for, though the recovery of the patient may appear to be complete, and he may think himself well, there is more or less permanent mischief left, which often leads to further trouble; and most of the severe cases of cardiac disease, with their train of hypertrophy, dilatation, congestion, dropsy, and death, are the legacy of acute rheumatism.

When left to itself, or uninfluenced by the treatment employed, rheumatic fever generally comes to an end in some five or six weeks, though mild cases may terminate in ten days or a fortnight, and severe ones be prolonged for two months or more. Until quite recently it might have been said that the remedies employed had little or no effect in controlling the disease, though it has been claimed for the alkaline treatment, and perhaps with some reason, that it lessened the tendency to heart mischief. But the discovery of the value of salicin and preparations of salicylic acid puts us in the possession of drugs which certainly are able in many cases to cut short, or greatly to modify, the progress of all forms of articular rheumatism.

Probably we see more of rheumatic fever in its subacute form than in any other, especially in hospital practice. I would call those cases subacute in which the temperature does not exceed 101° or thereabouts, and in which only a few joints are affected and the constitutional symptoms are comparatively slight. This form of the disease differs from the acute chiefly in degree, all the symptoms being less severe, and the liability to heart mischief not so great. But it is quite as tedious in its course as the more acute form, and relapses are not uncommon.

Chronic articular rheumatism is, I believe, not unfrequently confounded with other diseases of the joints. There is little or no fever or constitutional disturbance, and often not more than one joint is affected. It may arise independently, generally in persons with but a very slight rheumatic predisposition; or it may be the sequel of a more acute form of the disease. There is a good deal of swelling and some tenderness of the affected joint or joints, but no redness, and not much pain when the patient is at rest; nor is there any marked sweating. In doubtful cases a few doses of salicylate of soda will generally determine the nature of the ailment.

Every now and then—fortunately not often—rheumatic fever assumes a form for which I think the term "malignant" is most appropriate. In such cases, without any apparent reason, the temperature begins to rise, and may ultimately attain the height of 110° F., or even more; the joint affection subsides, pain is no longer complained of, and the patient often expresses himself as better just as the most serious symptoms are coming on. The profuse sweating ceases, the skin becomes dry, harsh, and intensely hot to the touch; very frequently a crop of sudamina breaks out upon the neck, chest, and abdomen (a very unfavourable sign); the tongue becomes dry and brown, there is great thirst, complete anorexia, the breathing is rapid, and the pulse very quick and generally weak; the patient is tremulous and restless, with a suffused and "ferrety" appearance about the eyes. Low muttering delirium is generally present, though occasionally there is some excitement, and unless the disease takes a favourable turn or relief can speedily be given, death ensues in a day or two, apparently from mere hyperpyrexia. Post-mortem examination gives us no clue to the cause of the excess of fever. In the cases I have examined there has been no pericarditis, though I dare say it is occasionally present. Certainly its existence is not essential to the hyperpyrexia. The lungs are dark and congested, the liver and spleen friable and easily broken down, the blood is tarry and fluid, but the muscles are remarkable for their bright red colour; the kidneys are unaffected. The odour of such cases, even when recently examined, is generally most offensive.

I am aware that this state of high temperature is not peculiar to rheumatic fever; that it occurs in continued fevers, in diseases of the brain and spinal cord, in pneumonia, and other disorders; but it is in acute rheumatism that it has attracted most attention, and is most frequently encountered. It is not only the more severe attacks of the disease that drift into hyperpyrexia; comparatively mild and subacute cases, which appear to be doing well, will now and then take this remarkable course.

I use the term "malignant" for this condition in the same sense that it is used for those terrible cases of small-pox, scarlet fever, or cholera, in which the chief force of the disease seems to fall upon the nervous system, overwhelming the patient before any distinctive symptoms are manifested, and because, from my own experience, and that of others, I have come to the conclusion that, in the present state of our knowledge, the greater number of such cases die, in whatever way they may be treated. Indeed, I think it is doubtful, in those that do recover, how much the remedies used may have had to do with the result; and Dr. Cavafy has recently recorded a case of high temperature in acute rheumatism that got well under the influence of food and stimulants only.

Disease, like nature, delights in variety, and there is a curious and rare form of rheumatic fever, if one may so call it, in which there is no joint affection at all. Dr. Graves mentions having seen several such cases, and in persons who were liable to attacks of the ordinary articular form. I have met with but one instance, and that was some years ago. The patient, a lad of sixteen, had symptoms exactly resembling those of acute rheumatism, the fever, the profuse sweating, and peculiar odour, &c., but no joint disease whatever. In the course of ten days or so he got quite well.

(To be concluded.)

EXTIRPATION OF THE LARYNX.

By DAVID FOULIS, M.D.,

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THE possibility of removing with success a part or the whole of the larynx seems to have been first hinted at by Kœberlé in 1856.[1] In 1870 Czerny made experimental observations on dogs, which proved that the operation could be successfully done. These experiments were turned to account by Billroth, who in 1873 performed the first excision of the human larynx. Operating for cancer of the larynx, Billroth had the satisfaction of dismissing his patient two months after the operation, cured, and able to speak clearly, though monotonously, by means of the ingenious artificial

[1] See Paul Berger in Hayem's Revue des Sciences Médicales, t. ix., part i., p. 298.

larynx now known as Gussenbauer's tube. I was at that time engaged in the study of throat diseases under Schrœtter in Vienna, and I well remember the remarkable distinctness and facility with which Billroth's patient could carry on a conversation. After Billroth, various continental surgeons have performed excision of the larynx for malignant growths; and at present there are on record ten cases of this operation. The following case is, I believe, the first in which it has been resorted to in this country; and it seems desirable to put it on record, together with the circumstances which led me to propose it to my patient.

In April, 1876, J. H——, aged twenty-eight, clothfolder in a mill, came to the Throat Dispensary complaining of hoarseness. He was a sallow man, who seemed, from the account which he gave of himself, never to have been quite healthy for any considerable length of time continuously. Not to particularise each separate ailment, it may be sufficient to say that at the age of twenty-one in particular he caught a severe cold after a wetting, and that he was laid up with this cold for ten months. He was hoarse at that time, but gradually recovered his voice, although he found himself permanently disabled from singing. The year before he came to the dispensary he found his voice again becoming hoarse, and this increased to such an extent as to be a source of serious annoyance to him. He stated that he could not shout; and that his words often appeared as if cut suddenly in two, the latter half of the word being quite inaudible even to himself. There was no pain nor difficulty in swallowing, but he felt a "sort of dryness" in the air-passage. He said he readily caught cold; never spat blood; and a tendency to night-sweats which formerly troubled him had now ceased. The bowels were regular; the appetite good.

On examination, the chest was seen to be narrow; the right apex rather flattened and dull to percussion. Over this dull area the expiratory murmur was hollow and prolonged, and there was increased vocal resonance. The other thoracic and abdominal viscera seemed to be in good condition; and I came to the conclusion, which was confirmed by the after-progress of the case, that the symptoms in the right apex did not indicate active lung disease.

With the laryngoscope, a warty-looking growth could be clearly seen projecting under the anterior end of the left vocal cord. The growth was of the size of a green pea; its colour was pale greyish-pink. The vocal cords and larynx otherwise were normal. In phonation the cords closed over the growth, hiding it from view. On closer examination, it was apparent that the growth was of a soft consistence, and that it was sessile on a pretty broad base, the base being on the sloping under-surface of the left vocal cord at its anterior end. This being the case, I decided against any attempt to pick parts of it away from the mouth, and proposed to the patient to remove it by external incision.

The circumstances of the patient forbade my operating at his house; Dr. George Buchanan therefore kindly admitted him into the Western Infirmary, and, at my request, performed the operation of cricotomy on May 19th, 1876. He made an incision through the skin vertically down the front of the larynx from the middle of the thyroid cartilage to the first ring of the trachea, cut and tied the crico-thyroid branch of the superior laryngeal artery, and then divided the crico-thyroid membrane and cricoid cartilage in the middle line. The cricoid cartilage was easily opened out by two hooks, and the tumour then came into view. It proved to be so soft as to break up in the forceps, and was removed piecemeal, the base being clipped clean with scissors and touched with solid lunar caustic. No sutures or tube were used.

The microscope showed the structure of the tumour to be that of a papilloma, with a very cellular interior.

The patient made a good recovery, and the wound healed in the greater part of its extent, leaving a small fistula in front of the crico-thyroid membrane. This fistula tended to increase in size as time went on, until the opening measured an inch or so in length. To relieve this state of things Dr. Buchanan rawed the edges of the gap and brought them together on Sept. 30th, 1876. This effected a partial relief, the fistula at the lower end of the wound persisting.

About this time I noticed, with the laryngoscope, that a nodule very like the original tumour had made its appearance at the old site, and, under observation, this continued to grow steadily, so as to leave no doubt of the fact of its being of the same nature.

In April, 1877, the patient informed me that he had a fistula in ano, and this I forthwith cut.

For some time I had been using insufflation of tannin on the laryngeal growth with Schrœtter's instrument, but this had no effect on it. Learning that I could get him into the Training Home for Nurses in St. George's-road, I proposed to the patient to allow me to split the larynx more fully than before, and to try to eradicate the growth. To this he consented, and on April 16th, 1877, I performed thyrotomy. I made an incision from the upper edge of the thyroid cartilage in the middle line down to the first ring of the trachea (through the still patent fistula laryngis). Time was allowed for the oozing of blood to cease, and then I introduced a probe-pointed bistoury, edge upwards, into the opening and between the vocal cords, and split the thyroid cartilage completely in the middle line. The two halves of the larynx were held aside with hooks, and the growth was then clipped out with scissors. The site of the growth was then carefully cauterised with the actual cautery, and the edges of the wound brought together with deep and superficial wire sutures, the edges of the old opening having previously been pared. During the latter half of the operation the patient ceased to be under the influence of chloroform, and it was noticed that when the two halves of the larynx were held together the voice was quite audible, and even loud, though rather hoarse. After the sutures were put in the voice continued to be of fair quality.

The tumour, when removed, was exactly of the size and appearance of the half of a large raspberry. The microscopic structure was the same as in the first case, with perhaps more of the round-celled or sarcomatous tissue.

Everything went on well till April 20th, four days after the operation. On that day the patient had a rigor, with headache and thirst, and the temperature rose to 104°; pulse 105. This was soon explained by the presence of an erysipelatous blush at the left side of the neck. The stitches were at once removed, and the patient was carefully fed at regular intervals with beef-tea, milk, and brandy. No iron was allowed. In three days the temperature fell to the normal point; and the wound, on being examined, was found everywhere closed, except at the site of the old fistula laryngis in the crico-thyroid membrane, where the skin, being puckered in and thickened, had refused to unite. The patient was sent home in good health on May 8th—i. e., three weeks after the operation.

He continued to visit the Throat Dispensary at regular intervals, and about July last I again noticed that the growth had made its appearance at the old place. The patient declined further interference, and visited a number of surgeons, all of whom advised him to let the tumour alone, with the suggestion from one or two quarters that a tracheal tube might be put in below the seat of the growth in the event of suffocation becoming imminent. In the month of August the breathing became so much obstructed as to call for interference, and the patient returned to me with the budget of opinions which he had collected. At this time there were two enlarged glands above and to the left of the larynx; but these had been much larger and softer just after the last operation, and they were distinctly diminishing in size according to both the patient's account and my own recollection of them. The tumour, as seen with the laryngoscope, was larger than ever before. It pouted in a nodular, reddish rounded mass into the trachea just below the cords, filling nearly the whole of the lumen of the air-tube. The voice was a hoarse whisper, and the aspect of the patient anxious and occasionally livid.

I felt that it would not be right to attempt any more excision of the growth in view of the recurrence after the thorough removal and cauterisation at the thyrotomy operation. With this the patient was quite in accord; and when I proposed to him the removal of the larynx he, after some hesitation, agreed to have it done, chiefly because of the lingering death which was in prospect, and on the ground that if an operation for the introduction of a tube into the trachea must be undertaken in order to avert death by suffocation, it might be as well at the same time to remove the diseased and useless larynx and replace it by an artificial one.

Accordingly, he came to the Training Home again, and

on Sept. 10th, 1877, I removed the larynx. My incision began at the lower edge of the hyoid bone, and ran down the middle line to about an inch below the cricoid cartilage. A small piece of lint was applied to the fistula to prevent blood from entering the air passage. The soft tissues were next dissected carefully off from the laryngeal cartilages back to the pharynx, first on one side and then on the other, and any small vessels which bled were ligatured. There was not much bleeding, and by simply waiting for the oozing to stop a clear field was secured for the final steps. The upper end of the trachea was cleared, pulled forward with hooks, and divided at the first ring. I incised lightly the mucous membrane at the back of the trachea transversely, and introduced a leaden tube curved like a syphon with an india-rubber ring round the end in the trachea, which it thus closely fitted. This curved tube completely answered the purpose of preventing the escape of blood into the trachea, and also of allowing respiration to proceed from a point which was away from the field of operation. The cartilaginous box of the larynx was then pulled forward with a sharp hook, and freed from its attachments at the upper end and behind. I at first intended to leave the upper margin of the thyroid cartilage to form an arch which might prevent the wound from collapsing and cicatrising too closely. But it was found that an extension of the growth had taken place upwards along the scar of the thyrotomy operation, and this necessitated the removal of the whole front part of the thyroid cartilage. The superior cornua of this cartilage were left, as well as half of the arytenoid cartilages, these parts being well out of the area of the disease. The edge of the trachea was fixed to the skin on either side by two long wire sutures passed deeply into the tissues. No other sutures or dressings were used. The ordinary tracheotomy tube being much too small to prevent fluids entering the trachea, I left in the leaden syphon-tube for the first twelve hours. Thereafter larger tubes of gutta percha, and finally of vulcanite, were procured, which, completely filling the trachea, prevented anything but air from getting into it.

The operation lasted for two hours and a half. As soon as the patient was put to bed a subcutaneous injection of one-third of a grain of morphia was given. During the first night there were several fits of retching, which rendered it necessary to introduce food into the rectum instead of into the stomach, but after twenty-four hours, this tendency to vomit ceasing, I was able to pass, per No. 12 elastic catheter, into the gullet a regular supply of nourishing liquid food every five hours. This was much facilitated by the use of Yellowlees' stomach-pump bottle.

Recovery took place after the operation uninterrupted by any serious accident. For the first week the temperature averaged 99·7° F. in the morning, and 100·7° in the evening, the highest morning temperature being 99·8°, and the highest evening temperature 101·4°. The pulse averaged 86, never rising above 106 per minute. By the eleventh day after the operation temperature and pulse were both reduced to the normal standard. From the first the temperature of the room was maintained at 70°, and the air round the bed was heavily carbolised by means of a small current of steam from carbolic-acid solution in a kettle on the fire, so regulated, however, as never to form anything like a fog near the patient, the intention being merely to disinfect the air. On the eleventh day this was discontinued.

Five days after the operation the patient could swallow liquids freely. Curiously, he found that he could swallow a draught of any fluid, but if he tried to sip it the liquid trickled down past the tracheal tube and out upon the chest. On the ninth day he swallowed fifteen ounces of beef-tea in two draughts without any pain, but as the dregs still trickled through the wound the feeding by the catheter was continued for some time longer. No attempt was ever made to wash out the wound, but all loose mucus and pus was carefully sucked out from time to time with a wide-aperture glass syringe.

Examining the parts which I had removed I found that the tumour on the under surface of the left vocal cord had not enlarged its base downwards, but that it formed a pendulous mass hanging into the trachea as far down as the first ring. It filled the trachea in such a manner as to excite surprise at the possibility of the patient breathing, hardly a chink remaining of the lumen of the air-tube. From the upper part of the tumour an extension took place upwards, like a soft, pale, greyish-red fringe, along the line of the thyrotomy incision. This part of the growth had the structure of spindle-celled sarcoma.

The *prognosis* in this case is decidedly darkened by the fact of this extension upwards having taken place. Of the ten cases in which the operation of excision of the larynx has been performed, six cases are reported to have ended fatally. Of these fatal cases two were due to the return of the disease at three and six months respectively after the operation. Time alone can show whether my case is to be ranked with these. Two more of the fatal cases succumbed to pneumonia at four and fourteen days respectively after the operation. In another case gangrene of the lung carried off the patient at the fourth day. In the last of the fatal cases the issue was due to collapse on the sixth day (from shock, insufficient food, and imperfect protection of the trachea from introduction of blood and secretions). Of the remaining four cases of excision, one was a very partial operation for stricture in syphilitic disease, the patient dying eleven months afterwards from the constitutional affection. In two cases the reports are defective and the ultimate issue cannot be stated. Lastly, the case published by Prof. Bottini is the only one on record in which six months after total excision of the larynx the patient was in a quite satisfactory state.

As to the *steps of the operation*, these must be of course determined in each case by the nature of the disease. The simplest plan is that which I followed before having had access to the accounts of the cases above noted. A single vertical median incision from the hyoid bone to the second ring of the trachea exposes the front of the larynx. The two sides of the cartilaginous box are then freed from the muscles quite back to the gullet. Up to this point the larynx is not opened, and no blood can escape into it. The larynx is then separated from the trachea by a transverse cut, the trachea having been previously transfixed and held forwards with a sharp hook. A large syphon tube of vulcanite, fitting the trachea, is put in, to keep out the blood and permit free respiration. If this is neatly and carefully done, there is no need of preliminary tracheotomy and use of Trendelenburg's tampon, which has the disadvantage of largely increasing the length of the wound, while in Billroth's case at all events it was not found to facilitate matters to any extent. If there is much oozing of blood, something may be gained by adopting Rose's plan of lowering the head of the patient so that the flow of blood is in the direction away from the trachea. The upper and posterior attachments of the larynx are next cut, care being taken, in separating the gullet and pharynx, to keep the edge of the knife close to the cartilages, so as to avoid buttonholing the gullet. It might be well to mop the raw surface out with solution of chloride of zinc (thirty grains to the ounce) at the close of the operation; but it is not advisable to irrigate the wound in any way afterwards, on account of the gulping and irritation which it sets up. Much may be done by keeping the air of the room pure and disinfected. The tracheal tubes should be as large as the trachea will admit, and are best made of hard polished vulcanite.[2] When oiled inside and outside with carbolised oil, they are easily changed, and remain clean for a considerable time. The last feature in the treatment is the introduction of Gussenbauer's artificial vocal apparatus. This must be delayed, however, until the wound is fairly healed and contracted, before which time the apparatus is useless from its small size.

Before concluding this notice of the operation, I have much pleasure in expressing my warmest thanks to the gentlemen who have been kind enough to take an interest in the case and to lend their valuable assistance. More especially must I thank Dr. George Buchanan and Dr. J. G. Lyon for their courteous co-operation in the course of this very anxious series of operative measures.

Note.—Sept. 23rd (thirteen days after the operation): No fever; patient able to sit up in bed and sup some porridge and milk; wound contracting.—Sept. 30th: Progress of the case uninterrupted by any bad symptom; patient has returned to ordinary diet, is able to be up during the day, and changes the tubes for himself.—Oct. 8th: The wound contracted to the size at which it is desired to keep it. A Gussenbauer's voice apparatus is being moulded to fit it.

[2] Mr. Foulds, dentist, Bath-street, Glasgow, has kindly made me a set of these tubes, which have answered perfectly.

THE MEDICAL HISTORY OF THE CASE OF THE LATE MDLLE. TIETJENS.

BY HORACE S. HOWELL, M.D., F.R.C.S.

YIELDING to the solicitations of those who are interested in the case of the late Mdlle. Tietjens, I, having obtained the consent of her relatives, proceed to describe the case as briefly as is possible considering the many points of interest.

I must firstly describe the symptoms which were present in 1874, when, on the 15th December, I was summoned by telegram to the Old Ship Hotel, Brighton. On the previous night she had been attacked by pain at Portsmouth, but thought that it was only colic, and travelled to Brighton, although the pain was very acute. When I arrived I found Mdlle. Tietjens sitting up in bed vomiting stercoraceous matter. There was a strangulated femoral hernia on the left side. This I was able to reduce without much difficulty, and shortly afterwards the bowels were copiously relieved; and I left my patient quite comfortable, and able to take arrowroot, &c.

On the 17th I again received a telegram saying that the pain had returned with great severity, but that there was no return of the hernia. I at once started for Brighton, taking with me Dr. Southey. We found that the pain was deep in the pelvis; and upon making a vaginal examination, I found that the cervix uteri was immediately behind the pubis, and beyond that there was a large rounded mass in the utero-vesical pouch; this mass was so tender that it was quite impossible to examine it carefully. I believed it to be the fundus of the uterus either simply congested, or the fundus containing a fibroid tumour; this was also the opinion of Dr. Southey; we therefore ordered salines, aperients, and opiates, warm injections, and rest. On the 18th she was removed to town, and I was able to push up the tumour, so that it was out of the pelvis, and she was free from pain; but from time to time it slipped down, and whenever that happened great pain was excited, with colic and vomiting.

On Dec. 24th Sir James Paget saw her with me, and advised the same treatment—viz., the pushing up of the tumour. The menses soon commenced, and after the first two days had passed, all pain and tenderness had disappeared, and the recovery was most complete. She wore an elastic truss for the hernia for a few months, but never again had any trouble from it, and enjoyed good health, excepting an illness when she was in New York, for which she was attended by Dr. Mott.

She had good health until June 29th, 1876, when the tumour came down, and I was unable to push it up again, so on the 5th of July I called to my aid Mr. Spencer Wells. He tried to raise the tumour, but failed, and we determined to try rest and the usual treatment. On July 11th Mr. Spencer Wells placed her in the knee and shoulder position, and after a little manipulation was able to push the tumour up out of the pelvis, and from that time it never gave us any more trouble. She now went on the provincial tour, and was in splendid health, and her voice seemed to be stronger and purer than ever. She sang in eighty performances.

On the 23rd of April, 1877, she sent for me and complained that she was increasing in size, so that her dresses had to be altered, but that she had no feeling of being ill. I examined the abdomen and found some fluid in the abdominal cavity. The urine was scanty, but free from albumen; the bowels constipated, and the skin harsh and dry. I prescribed aperients and diuretics, regulated the diet, and determined most carefully to watch the progress of the case. At first there was some improvement, but in a few days' time the abdomen again increased in size. On the 9th of May I examined the abdomen and found that from two inches above the umbilicus to the pubes the percussion note was quite dull; above that line the abdomen was quite resonant. In both iliac regions the note was resonant. The upper wall of the vagina was pushed down, the labia were everted, and the uterus was fixed. I could also feel a small enlargement on the right side, which I believed to be the right ovary.

On the 10th of May I again asked Mr. Spencer Wells to meet me, and he carefully verified my diagnosis. We tried a variety of diuretics and found them useless, the best effect having been obtained from ten-grain doses of the resin of copaiba.

She was still able to get about, and on Saturday, May 19th, sang in "Lucrezia Borgia," but with very great pain. On Sunday she had a sudden pain in the abdomen, and exclaimed, "Something has given way." I found that the uterus was now freely movable; and that the dulness on percussion could be altered by placing the patient in different positions. This was not the case before. The kidneys ceased to act, not more than two ounces of urine being voided in the twenty-four hours. The urine was very high-coloured, and effervesced on the addition of an acid; was free from albumen. The abdomen increased in size with fearful rapidity, some days gaining two inches in the measure taken at the level of the umbilicus. The bowels now could not be made to act, and nausea was added to her other sufferings. The breathing was seriously impaired, and it was imperative that some relief should be given her.

On the 22nd Mr. Spencer Wells, Sir William Jenner, and I met, examined the case, and determined that the abdomen should be opened to see whether it was possible to relieve her urgent distress. Accordingly on the 23rd of May Mr. Wells (being assisted by Dr. Bantock, Dr. Thornton, and myself, Dr. Day administering methylene) performed the following operation:—The abdomen was opened by an incision from the umbilicus to the pubes; sixteen pints of ascitic fluid escaped. Then Mr. Wells introduced his hand and found that there was a fibroid tumour enlarging the fundus uteri to about the size of a cocoanut. He then passed his hand higher up, and found that the omentum was thickened, hardened, and attached by many adhesions to the abdominal wall. This had for some time confined the effused fluid to the lower part of the abdominal cavity. After freeing some coils of intestine from adhesions behind the fundus uteri, the incision was closed with silk sutures carried through the whole thickness of the abdominal wall, and treated in the way usually adopted by Mr. Spencer Wells after ovariotomy. I may remark that the abdominal walls were about five inches in thickness, fat having been so freely developed. The patient went on well. The kidneys secreted forty ounces during the first twenty-four hours after the operation, although no diuretic was being administered, and the bowels acted without any difficulty. All was done in the way of diet and careful nursing.

I examined the fluid which was taken from the abdomen, and found that it was coagulated, and contained numerous large cells containing nuclei and nucleoli, many cells with tails, and many of very irregular form. There was a history of cancer in the family.

Mr. Wells met me many times during the next four weeks, and step by step the patient improved until the 21st of June, when she went to Worthing. She suffered a good deal during the journey. I went to see her on the 26th, when I met Mr. Harris, who attended her during her stay in Worthing. On the 29th Mr. Wells accompanied me to Worthing, and we found symptoms of the re-accumulation of the fluid. I visited her twice a week, and on the 10th of July Mr. Spencer Wells tapped her, removing twenty-five pints of fluid. We now found that the thickened omentum had increased much in size, and was a large mass, occupying the upper part of the abdomen. On the 7th of August I tapped her, Mr. Wells being at Manchester, and relieved her of twenty-one pints of similar fluid; on the 3rd of September I was summoned by telegram, and again tapped her, removing sixteen pints.

On the 13th of September she was brought to town by Mr. Harris, every precaution being taken to render her journey harmless.

Soon again the fluid was secreted, and, Sir William Jenner being at Balmoral, Dr. Wilson Fox was called to our aid. He advised that the fluid should be removed as soon as it caused much distress; this was done on the 22nd, when fourteen pints were removed by Mr. Spencer Wells.

On the 25th Sir James Paget saw her with me to decide whether any further relief could be given her, as anasarca was now added to her other troubles. She was now very

much worried by a slight attack of bronchitis, which caused so much pain when the abdomen was shaken by the coughing.

On Oct. 2nd Mr. Wells saw her with me. She was then bright and cheerful, but in the evening she became blanched, and her pulse very frequent, but feeble. The faintness passed away, and she was undressed and put to bed. She asked for some milk at two o'clock in the morning, drank a tumblerful, remarked how nice it was to be able to drink such a quantity with ease, turned her head on the pillow, and died. No post-mortem was allowed.

It is necessary to correct an error which has been repeated in several papers as to our patient having undergone "painful operations." None of them were painful. She was saved the pain of the principal operation and of each of the tappings by the administration of the bichloride of methylene, and on every occasion her painful symptoms were relieved for a time.

All who knew Mdlle. Tietjens admired her. I had more opportunities of hearing of her large-hearted charity than others because it was to those who were ill and in want she gave relief. She gave her gifts in such a kind way that made them doubly valued, so there are many who grieve for her; and during her long illness she was much comforted to find that so many who were in humble circumstances were asking for her, and praying that she might recover, as well as many in the higher circles, who, from the Queen downwards, expressed their sympathy.

Boundary-road, St. John's-wood, N.W.

NOTES OF

A CASE OF PREGNANCY COMPLICATED WITH DROPSY OF THE AMNION.

BY WILLIAM BERRY, M.R.C.S. ENG., L.R.C.P. & S. ED.

ON March 8th, 1875, I was called to Mrs. C——, aged thirty-six, married, and mother of six children, when she gave the following history. Two months previous she had passed with her motions a quantity of blood, which she attributed to piles, the effect of which rendered her feeble and languid—so much so that she was unable to follow her usual household work. She menstruated in the second week of August, 1874, having a profuse discharge, then the menses were absent till the first week of November, when she again had menorrhagia, and from this time till now she had not been well. She believed herself to be pregnant.

The following symptoms were present. She was very thin and pale (anæmic-looking); the mucous membranes of the mouth and conjunctivæ were very pale; the epithelial covering of the tongue was pale and flabby, and portions removed in patches; there was loss of appetite, depression, a feeling of sinking in the epigastrium, dizziness and faintness. The chest was healthy so far as the lungs were concerned; the heart-sounds showed a systolic murmur, heard most distinctly at the apex (mitral regurgitation). Pulse 86, short and feeble, but regular. Urine normal in quantity, and without albumen or sugar. She was ordered a mixture containing iron, digitalis, and spirits of chloroform.

April 23rd.—Has improved up to now very considerably; the usual symptoms of pregnancy are present.

June 5th.—Up to this date her symptoms have varied much; she has had repeated losses of blood, the abdomen is very much swollen, umbilicus obliterated, skin shining and tense, urine scanty and high coloured, legs swollen and painful. She is unable to lie in the recumbent posture owing to severe dyspnœa.

8th.—Symptoms so urgent that I determined to bring on premature labour. I introduced a male catheter (from which the end had been removed) through the os uteri, between the membranes and walls of the uterus, pushing home the stilette, and allowing the liquor amnii to escape gradually.

9th.—I saw her about 10 A.M., and found labour had commenced. The os was partially dilated. The head could be felt presenting through the membranes. Pains feeble. I now ruptured the membranes, when a large quantity of amniotic fluid escaped (probably from one gallon and a half to two gallons). The head of the child now descended, and in three-quarters of an hour delivery took place. The child was puny and delicate, only living a few days. The placenta was easily removed and presented no peculiarity.

After delivery she felt almost exhausted. Brandy-and-water was freely administered; rest and quiet enjoined.

Two days afterwards puerperal mania developed, and other unfavourable symptoms followed, which, with appropriate treatment, subsided.

July 31st.—I attended her up to this date. She had gradually recovered, being able to move about the house. The mitral murmur was still audible, and there was great debility.

On September 25th I again examined her and found, although the heart's sounds were not normal, the murmur had disappeared. She was not, however, able to bear much fatigue.

She is now (October, 1877,) enjoying good health; and six months ago I delivered her of a child, after which she made a good recovery.

In all probability the cardiac mischief was the cause of the hydro-amnios in this case.

Wigan.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

A SEVERE CASE OF ACUTE RHEUMATISM COMPLICATED BY PERICARDITIS AND BRONCHO-PNEUMONIA RELIEVED AT ONCE, WHEN THE PATIENT WAS APPARENTLY DYING, BY SALICYLATE OF SODA, AFTER FAILURE OF A FAIR TRIAL OF THE ALKALINE TREATMENT.

(Under the care of Dr. WHIPHAM.)

THE following notes were kindly drawn up by Dr. I. Owen, medical registrar.

Sydney D——, aged twenty-one, a whitesmith, was admitted with a severe attack of acute rheumatism on Dec. 13th 1876. His father had had rheumatic fever twice, and his mother was said to be "gouty." The patient himself suffered from scarlatina and measles in his childhood, and until fifteen years of age had a fetid discharge from the ears, and headache. Of late years he had been robust, in spite of the fact that he had drunk beer in great excess. He rarely drank spirits.

The history of the present illness is as follows. For three weeks previously to his admission he suffered from nasal catarrh and general malaise, accompanied by pains in the shoulders. Thirteen days before he came under observation he was attacked by severe pain in the joints; the pains came on gradually and affected numerous joints simultaneously. He was treated by a medical man, who would not allow of his being moved for some time. About a week after the commencement of the acute pain in the joints he threw off the bedclothes during the night, and was found next morning suffering from dyspnœa and cough. In this condition he remained until his admission. Five days previously diarrhœa set it, the bowels acting four or five times daily.

On admission, there were pain, swelling, and redness in the insteps and hands; cough, with slight frothy expectoration, and much dyspnœa; the tongue was red and thickly coated. Bowels open three times; motions loose and offensive. No vomiting. The man was very weak and depressed. Temperature: morning 102·1°; evening 102·6°. The chest in front was very resonant, even over the præcordia, which was only comparatively dull. The left side of the chest was tender to pressure. Harsh-blowing respiration and coarse râles were audible at apices and bases. Heart-sounds distant; no murmur; apex-beat indefinite. Hepatic dulness extended about two inches below the ribs, but was not in-

creased above. There was great general abdominal tenderness. Skin moist, and exhaled a peculiarly strong mouse-like odour. Ordered two grains of sulphate of quinine and one drachm of bicarbonate of potash, with citric acid, every four hours; to have three ounces of brandy daily, and a fifteen-grain chloral draught at bedtime.

Dec. 14th.—Temperature: morning 101°; evening 102·1°. Pulse 88; respiration 44. Less pain in the joints; in fact, all the symptoms were much relieved. Bowels open twice; loose. Tongue showed a dirty-brown streak on each half, over a thick white coating. Abdomen still very tender; and on the skin a number of faint rose-coloured spots were seen, which disappeared on pressure; but they were not so clearly defined nor so much elevated as the spots of enteric fever. Urine natural in colour, turbid with urates; no albumen; phosphates about normal in quantity.

15th.—Temperature: morning 101·1°; evening 102·4°. Pulse 88, not quite regular; respiration 42. No change in the pains; cough and dyspnœa diminished; sputa slightly blood-streaked and muco-purulent. Bowels open three times yesterday, not since. Abdomen tender; no spots. Tongue dry; the brown streaks more marked. The odour of the skin still more pronounced. Præcordial dulness of same extent as heretofore; friction, which was audible during part of yesterday, gone; the heart-sounds very distant. To have a morphia draught at bedtime.

17th.—Temperature: morning 103·2°; evening 103·6°. Pulse 104, strong; respiration 44. Pain and swelling much diminished; very little delirium; bowels open twice, loose and light-coloured; tongue much coated; heart's impulse and sounds strong; no friction (patient appears too ill for percussion); abdomen tender; slight miliary eruption; no rose spots. Urine: natural colour, clear, alkaline, slightly albuminous, phosphates very deficient.

18th.—Temperature: morning 103·6°; evening 103·6°. Pulse 120, sharp; respiration 54.—11 A.M.: Delirious during night, rational this morning; pain in chest on coughing; pain on moving the hands; odour of skin less marked; patient is very low. Ordered five grains of carbonate of ammonia, twenty drops of spirits of ether, and one drachm of compound tincture of chinchona in one ounce and a half of camphor-water, every four hours. To have a chloral draught at night, and eight ounces of brandy mixture daily.

19th.—Temperature: morning 103·2°; evening 102·8°. Pulse 110; respiration 44.—Noon: Had a restless night, without much delirium; bowels open seven times since last note, motions as before; tongue thickly coated; the condition is much as yesterday. Urine natural in colour, clear, highly acid, slightly albuminous, phosphates moderate. The heart was not examined since the 17th on account of the distress caused by exposure to cold. No pericardial friction audible to-day. To have twenty grains of subnitrate of bismuth at once, and repeated in the evening. To have a morphia draught (quarter of a grain) in the evening.

20th.—Temperature: morning 101·1°; evening 101·8°. Pulse 108, weak; respiration 43.—11 A.M.: Diarrhœa continued till last night; was stopped by the bismuth. No delirium; slept well. Feels better, but there is no less pain in the joints. Abdomen extremely tender. Profuse perspiration. To take compound chalk mixture as occasion requires.

21st.—Temperature: morning 100·1°; evening 102·6°.—Noon: No delirium. Bowels open twice during the night. Now sleeping.

23rd.—Temperature: morning 100·1°; evening 101·1°. Pulse 104, weak; respiration 36.—Noon: No delirium. Tendency to diarrhœa, which was checked by the chalk mixture. Pains in joints and sweating as before. Great abdominal and præcordial tenderness on firm pressure. Præcordia resonant; heart-sounds faint; no murmur or friction. Urine pale-brown, turbid with urates, slightly albuminous.

24th.—Temperature: morning 99·4°; evening 101·1°. Pains less in the joints.

25th.—Temperature: morning 98·1°; evening 100·6°. Soda poultice. Recurrence of pains in the joints.

26th.—Temperature: morning 99·4°; evening 101°. Pulse 96; respiration 30. Pains in the joints relieved by the poultices. Bowels open in the night, loose, but no actual diarrhœa. Skin dry; face pale; muco-purulent expectoration; still slight "mousy" odour; abdomen and præcordia tender. Urine high-coloured, clear, acid; faint trace of albumen.

28th.—Temperature: morning 99°; evening 101°. Respiration 32. Occasional pain in wrists and heels when lying still; in other joints on movement only; profuse sweating; mousy odour. Bowels open; no diarrhœa. Tongue coated. Urine clear, high-coloured, acid.

Jan. 1st, 1877.—Temperature: morning 99·8°; evening 101·6°.

2nd.—Temperature: morning 100·6°; evening 101·2.—3 P.M.: Pulse 100. Tongue slightly coated. Skin moist; mousy odour much less. Severe pain in both wrists.

5th.—To have ten grains of bismuth, six drops of the sedative solution of opium in one ounce and a half of infusion of cloves.

6th.—Temperature: morning 99°; evening 99·6°. Pulse 104. Rheumatic odour scarcely perceptible; profuse sweat. Pains in wrists much relieved. Vomiting. Bowels open.

10th.—Temperature: morning 100·4°; evening 101·5°. Pulse 130. Tongue nearly clean. Less pain in right wrist, but more in left wrist and elbow. Vomiting.

13th.—11.45 A.M.: Tongue red, clean. Bowels loose; more pain. No sickness. Slight cough. Muco-purulent expectoration in small quantity. Spirits of ether half a drachm in one ounce and a half of quinine, and iron mixture every four hours. To take eight ounces of port wine and four ounces of brandy daily.

14th.—Temperature: morning 99°; evening 99°. Herpetic eruption about the right angle of the mouth, extending for some distance over the cheek. Vomiting.

15th.—Slight remission of pain. Vomiting very troublesome. To have the effervescing citrate of ammonia mixture every four hours.

17th.—Temperature: morning 98°; evening 98°. No pains. Cough for last two days. On examination a little dulness was found at left base; breathing natural, save at the part mentioned, where there are coarse crepitations.

18th.—Five grains of carbonate of ammonia, five grains of iodide of potassium, in chinchona draught, an ounce and a half three times a day.

19th.—Temperature 99·1°; pulse 92; respiration 33. Recurrence of pain in left shoulder and wrist; cough relieved; expectoration scanty, viscid, frothy, and very slightly rusty in some places. Left base rather dull, with a few mucous sounds at end of inspiration. Appetite good; bowels open; tongue clean and red.

23rd.—Ten drops of perchloride of iron in a bitter mixture, three times a day; brandy repeated.

26th.—Since yesterday morning has been suffering from severe return of rheumatic pains in his left arm and leg; also to some extent in his right arm. Tongue clean; bowels open. Temperature 100°; pulse 108, very weak. Ordered twenty grains of salicylate of soda in caraway water every two hours; repeat brandy.

27th.—Temperature 99·1°; pulse 112, weak. Tongue clean; bowels open; appetite good. Pains considerably less than yesterday. The left arm is much easier, but pain severe in left knee; less depression. Repeat mixture every four hours; ordered iodine ointment to the knee.

30th.—Temperature 98·5°; pulse 96. Tongue clean; bowels open. No pain; feels much better; no depression. Repeat mixture every six hours.

Feb. 5th.—Temperature 98·5°; pulse 88. Has been up for last three days; rapid improvement. Repeat mixture twice a day.

10th.—Pulse 92. Slight return of pain in right knee and along back from the nape of the neck to the lumbar region. Repeat mixture every three hours.

14th.—Pains have left him.

27th.—Pain at times running through chest to shoulders. Gait tottering from weakness. Tongue clean; breathing regular; appetite good; pulse 100. Sent to the Morley Convalescent Hospital at Wimbledon.

March 1st.—Occasional pains. One drachm of syrup of phosphate of iron three times a day. To have twenty grains of salicylate of soda when in pain.

18th.—No pain for a week. Is much stronger.

28th.—Discharged from the convalescent hospital improved.

Remarks by Dr. WHIPHAM.—Apart from the severity of the rheumatic attack, the above case is specially interesting as an illustration, 1st, of the now universally acknowledged

beneficial effects of salicylic acid in the treatment of acute rheumatism; 2nd, of the fact that the administration of the drug does not appear to be contra-indicated in cases in which extreme prostration has resulted from a prolonged continuance of the rheumatic symptoms. The subject of the above notes, when admitted, was excessively weak and in acute pain, and with a view of relieving the articular pain full doses of alkali were ordered, and at the same time two grains of quinine. That the bowels were purged was duly taken into consideration, and it was determined, in spite of the fact that alkalies in such full doses not unfrequently cause diarrhœa, to administer bicarbonate of potash, in the hope that the acute pain, which was by far the more prominent symptom, might be relieved. The urine, from having been turbid with urates, became, in five days, alkaline, but on the sixth day the patient was so extremely prostrate that a stimulant and tonic mixture was given. The diarrhœa continued, but was stopped on the eighth day by two full doses of bismuth. The pain in the joints was unrelieved. Little or no improvement took place, in spite of various remedies, for the next three weeks, and the question as to the advisability of administering salicylic acid was often debated and as often discarded, in consequence of the patient's great weakness and depression. His temperature had, however, as shown by the notes, come gradually down from 102° to 99°. On January 11th, 1877, four weeks after his admission, he was ordered quinine, iron, and ether, with alcohol (brandy and port wine), which he had been taking since admission; and three days later symptoms of broncho-pneumonia of the base of the left lung became manifest, and from January 15th to January 23rd he took different mixtures, such as ammonia, iodide of potassium and bark, perchloride of iron, phosphoric acid, and strychnia. On January 26th he experienced a severe recurrence of his rheumatic pains, which had latterly been to some extent relieved, and on the following day, in spite of weakness so extreme that the boy's life was despaired of, it was determined, as a last resource, to try the effect of salicylic acid, and he was ordered salicylate of soda in scruple doses every two hours, and to continue his brandy. The result of this change of treatment was almost immediate; and the rapidity of the boy's improvement fairly astonished all who had watched the case. On January 25th all hopes of his recovery had been abandoned, and the salicylate of soda was commenced on the 26th. On the 27th he was much easier and stronger, and three days later he was in "no pain, feels much better, no depression." Three days after that (February 2nd) he was allowed to get up.

During the months of February and March he suffered from slight pains in various joints, which were always relieved by the drug, and he eventually left Atkinson-Morley's Convalescent Hospital on March 28th, comparatively strong and in good health.

GLASGOW ROYAL INFIRMARY.

CASE OF MULTIPLE ANEURISMS, ONE OF WHICH, SITUATED AT THE UPPER PART OF THE RIGHT FEMORAL, WAS OBLITERATED BY THE INTRODUCTION OF A FOREIGN BODY INTO THE ANEURISMAL SAC.

(Under the care of Dr. WILLIAM MACEWEN.)

GRANTING the truth of the theory that blood coagulates as the result of contact with a foreign body, Dr. Macewen thought that this theory might be put to practical test in cases where it is advantageous to produce coagulation as a preliminary to other changes. In support of the theory that blood coagulates as the result of contact with a foreign body, it has been stated that a portion of a vein may be ligatured at both ends, and removed full of blood from the body of an animal, and kept for an indefinite period without coagulating. But when a foreign body, such as a small piece of wood, is inserted into the vein thus ligatured and removed full of blood, coagulation ensues, commencing in the blood at the point of contact with the foreign body. Again, in those recent cases of aneurism treated by galvano-puncture, coagulation has taken place to a greater or less extent, the galvanism getting the credit of producing this result. In these cases it might be interesting to ascertain how far the coagulation is due to the galvanism, and how far dependent on contact with foreign bodies, in the shape of galvano-puncture needles. With these views under consideration the following case of aneurism may prove of interest.

A well-built, muscular man, about fifty-six years of age, presented himself at the infirmary with two aneurisms, one on the right and the other on the left femoral. Three years before he was in the West Indies, and while working on board ship he over-exerted himself, after which he felt feverish, and was sent to one of the hospitals on shore, where he was treated for "local fever." (?) After his return to his ship he felt pain in his right leg, and on examining it he found a pulsating tumour of small size in the femoral region. From that time the swelling gradually increased in size, but latterly it increased more rapidly. At first it was lobulated, a band dividing a small upper portion from the bulk of the tumour below. Some superficial inflammation took place, and this constriction subsequently gave way and the tumour became uniform in shape. It was situated at the upper part of the femoral artery, and implicated the external iliac for about an inch above the normal line of Poupart's ligament; this structure, somewhat altered in form, being found above and more to the front of its usual situation. The aneurism had a circular form, and measured five inches across its convexity both longitudinally and transversely. In several places its walls were very thin. On the left femoral artery another aneurism, about the size of a large walnut, was situated about two inches below Poupart's ligament. A murmur prolonged over the great vessels, and especially towards the right side, accompanied the second cardiac sound. There was an area of dulness on percussion over the right side of the sternum, extending for fully two inches further towards the right side, between the second, third, and fourth ribs. An aneurism of the aorta was suspected. All the superficial arteries were hard and rigid, and evidently were affected by calcareous degeneration, so much so that, leaving out the fact of the multiplicity of the aneurisms, the state of the arteries precluded the operation by ligature.

The treatment adopted was as follows:—Tincture of steel in small but gradually increasing doses till twenty drops every four hours were tolerated. After a fortnight of preparatory treatment, pressure was exerted on the common iliac artery by means of Lister's abdominal clamp for twenty-four consecutive hours, but without any marked result. Pressure was again resorted to both above and below the aneurism for a period of four or five hours each day for over a fortnight. Besides this, the patient stated that he had employed the clamp himself on several occasions. On one occasion, after the pressure was removed, the pulsations were found to have ceased, but the contents of the sac were quite fluid, and the pulsations shortly after returned with their usual force. Two weeks then elapsed during which no treatment was pursued, the patient being compelled from circumstances to be out of bed, and walking a little every day for one week. At the end of the fortnight he had two days' rest in bed, and on the night of the third day (13th April), at 12 P.M., pressure was applied to the common iliac artery until the pulsations in the sac entirely ceased. A steel needle of very fine calibre was then introduced into the sac and passed down carefully until it was felt to touch the opposite side of the sac. It was left in that position for ten minutes, when the point was cautiously directed upwards, and after some time downwards, then laterally, and at the end of one hour it was slowly removed, and pressure was maintained for four minutes over the point of puncture. The pressure on the common iliac was gradually removed about ten to fifteen minutes after the needle had been withdrawn. The walls of the sac then seemed firmer, though the patient declared that he could detect no change in them. Next morning, twelve hours after, there was an appreciable difference, the walls feeling firmer; and thus a centripetal solidification gradually took place until, on the 18th April (about 96 hours after the insertion of the needle), the pulsations had completely ceased and the tumour felt solid. The limb was swathed in flannel, and the patient kept at rest while the usual precautions were observed. On the 28th April he got out of bed against orders, and walked some distance; but, notwithstanding this, he made a rapid recovery. The swelling and discolouration of the limb were not so great as usual after ligature. He went to the country for a month, and returned at the beginning of June and commenced his

work, feeling quite well, though the right limb was stiff and sometimes slightly swollen when he attempted to move about without his bandage.

He continued at his work and in the enjoyment of good health for nearly eight months. At the end of this time he presented himself with an ulcer of the tongue, which proved to be epithelioma, and for which he was treated palliatively in the wards of the infirmary, as the case was not considered suitable for operation. He was then dismissed, and died at his own house, after a lingering illness, on the 13th May, 1876—thirteen months after the obliteration of the right femoral aneurism. For four or five days previous to his death he lay in almost a comatose state.

In accordance with the patient's wish, a post-mortem examination was performed on 15th May by Dr. Foulis. The abdominal aorta, both external iliacs, and both femoral arteries were removed for more minute inspection. These parts were kept in a preserving fluid for over ten months before being minutely examined; and the report of Dr. Foulis, which is here appended, was based on that examination.

Post-mortem examination.—A large aneurism existed on the descending part of the arch of the aorta. The aorta, and indeed all the arteries which were examined, were atheromatous, the interior of the aorta being in places quite lined with calcareous curved plates. In the left groin there was an aneurism the size of a small hen's egg, consolidated by a firm laminated yellow clot, in the upper and anterior part of which a channel ran corresponding to the channel of the femoral artery. The walls of the aneurismal sac were rough, and rather adherent to the clot, and were lined by a yellow, flaky, atheromatous material. The layers of the clot, which was to a large extent decolourised, could be easily separated in certain places. The channel in the clot above referred to was lined with a delicate, perfectly smooth, translucent layer. The femoral vein was firmly attached to the back of the aneurism; its walls were thickened. The profunda artery was given off at the lower end of the aneurism, its channel being partly obstructed by the clot in the aneurismal sac. In the right groin were the remains of another aneurism, in the form of a small, elongated, hard, firm, fibrous mass, two inches long, and three-quarters of an inch thick at the thickest part. On being cut open, this was seen to be made of a dense, cicatricial, fibrous tissue in which were embedded small particles of calcareous matter, and some yellow atheromatous fragments. Under the microscope, the texture was that of scar-tissue, and in it could be seen the remains of a reddish pigment. The femoral artery was patent down to this mass, but below it the vessel was filled with a reddish-grey thrombus for about three inches. Lower down the artery was partly patent, but there was a shrivelled, pale, tough tissue, of a slightly porcellaneous aspect, separable from the internal coat; lower down, and continued into the popliteal space, there was a complete plug of this substance filling up the calibre of the vessel, except for a very small channel, drilled, as it were, through the side of the thrombus. The femoral vein was adherent to the back of the obliterated aneurism. The profunda artery was given off (just as in the other case), from the lower end of the fibrous mass; it was patent quite up to its origin in the fibrous tissue.

Remarks by Dr. MACEWEN.—During life the patient was shown to the Glasgow Pathological and Clinical Society on two occasions. First in March, 1875, as a case of multiple aneurisms; second in October, 1875, with the large femoral aneurism obliterated; and, finally, the specimen, consisting of the arteries from the abdominal aorta to the popliteals, was shown to the same Society in March, 1877. That the change in the vessel, or its contents, which led to the obliteration of the aneurism, was set up at the time in which the needle was inserted, I do not doubt, as the change was the immediate sequence of the act, and this condition continued until the sac was obliterated. But the whole mass of blood in the aneurism was not coagulated at once, otherwise there would have been no after pulsations. Whatever action was set up, it proceeded centripetally; and two questions present themselves: Did the foreign body set up coagulation in the peripheral portions of the blood, which, when coagulated, adhered to the sac and formed starting-points for the extension of the coagulation? or is it possible that some inflammatory action in the coats of the artery ensued on the introduction of the needle, although there were no local or general symptoms or appearances discernible indicative of this supposed inflammatory action? If neither of these views is accepted, only one other hypothesis is open, and that is that the result was attributable to other causes, the introduction of the needle being a mere coincidence. As general deductions can never be made with safety from a single instance, I leave the matter thus open. As to the laminated clot found in the left femoral aneurism, it was evidently of comparatively recent origin, and the patient, for some months at least, was in a much exhausted condition, vomiting the little fluid nutriment which formed his sole diet, saving enemata, and consequently he may be stated to have been on the most favourable footing for the effects to insure which are indicated in the "low-diet treatment." Moreover, he was confined to bed for a considerable time prior to his decease, and was in a comatose state for some days previous to his death, all circumstances favouring the formation of a clot.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE first meeting of this Society this session took place on the 9th inst., the President, Dr. Charles West, occupying the chair. Two papers were read: one a brief communication of practical interest to surgeons, by Mr. Farneaux Jordan, of Birmingham, upon certain variations of hydrocele of the cord, depending upon the more or less imperfect closure of the funicular sheath of peritoneum; and an observation by Dr. Sansom upon a case of noma, in which moving bodies, allied to micrococci, were found in the blood. Dr. Sansom carefully abstained from drawing conclusions from the phenomena he had observed.

Mr. FURNEAUX JORDAN'S paper was entitled "Two Peculiar Varieties of Hydrocele of the Cord." In it the author, having enumerated the different varieties of hydrocele in the scrotum, and their various combinations, referred to the origin of hydroceles of the cord, to which he limited his remarks. He considered them due to an imperfect obliteration of the peritoneal prolongation which took place along the cord from the internal inguinal ring to a point a little above the testis. This obliteration begins at two points, the ring and near the testis, and if incomplete, fluid may collect in the unobliterated space, forming a spherical enlargement, which is movable from the testis. Transparency is present, but is distinguished with difficulty, unless in the lithotomy position. The disease is most frequent in early life, and is called "encysted hydrocele of the cord," probably to distinguish it from the so-called "diffused" variety. Of the two peculiar varieties now referred to, the first is a so-called encysted hydrocele of the cord, connected with the abdominal cavity by a long, fine tube; the second, an encysted hydrocele of the cord, with a fine tubular prolongation upwards, which ceases near the external ring, not communicating with the abdomen. The point of interest in the first case is the communication of the hydrocele with the abdominal cavity by means of a fine tube of unobliterated serous membrane. In the second, the existence of a tubular prolongation running upwards, but ending in a blind extremity outside the inguinal ring. In the first case a truss was applied; in the other acupuncture was resorted to, and proved successful after two or three repetitions. The globular collection of fluid with the upward neck-like prolongation suggests for it the name of "water-bottle hydrocele of the cord.—Mr. RIVINGTON pointed out that the term "encysted hydrocele," applicable to the second variety, could not be applied to that in which the communication with the abdominal cavity remains open; and he would therefore suggest the phrase "congenital hydrocele of the cord" for this variety, just as the word congenital is applied to cases of vaginal hydrocele which communicate with the peritoneal cavity.—Mr. HOLMES, although wishing that

it were possible to have direct anatomical proof of the condition described by Mr. Jordan, fully admitted the possibility of the occurrence of the first of the two forms described by that gentleman. All would remember that in the body of Sir Astley Cooper there was found on both sides a communication between the tunica vaginalis and the peritoneum large enough to admit a probe, and there occur transitions from this slight condition to that of complete patulence where hernia exists. He considered the second form, described by Mr. Jordan, to be but little more than an accidental modification of the ordinary encysted hydrocele of the cord. It was very common to get varieties in their shape due to variations in amount of closure of the canal at different parts of its course.—Mr. CROFT had at present under treatment a child, five years of age, with a condition corresponding to the first described variety of Mr. Jordan. There was a globular swelling at the lower part of the cord, clearly containing fluid, which by steady gradual pressure could be returned into the peritoneal cavity. He inquired if Mr. Jordan had obtained a cure in his first case. By means of a truss Mr. Croft hoped to get obliteration of the narrow neck of the hydrocele, which could then be treated in the ordinary way.—Mr. S. OSBORN believed that the first diagram, which represented a hydrocele of the cord communicating with the peritoneal cavity, was merely an increased variety of the second diagram, which represented a bottle-shaped hydrocele of the cord; and considered that the pressure of the fluid secreted by a hydrocele of the cord would have the effect of opening up the areolar tissue, which feebly unites the two surfaces of the formerly open funicular process of the peritoneum.—Mr. WILLETT thought the alternative proposition more possible—viz., that the funicular sheath had never closed. All hydroceles may communicate with the peritoneum, and that being so, there was every reason in favour of the funicular portion of the tunica vaginalis being occasionally unobliterated, except at its lower extremity, or obliterated at both ends, but not in its centre. He would not apply the term "encysted" to either of these varieties of hydrocele; and as to their shape, that was a mere accidental circumstance, depending upon the amount of obliteration that had taken place.—Dr. JOHN HARLEY related a case in which a soft movable tumour occurred in the inguinal canal, but could not be returned into the abdomen. It was probably contained within an incompletely obliterated funicular sheath.—Mr. CROFT suggested the term "hour glass" for the variety of hydrocele in which there was a communication with the abdominal cavity.—Mr. HULKE had found that the processus vaginalis of the peritoneum remained patent very frequently indeed, either wholly or in part. Usually it was obliterated above at the inguinal ring, and below at the testis, but sometimes it was unobliterated throughout. He was, therefore, much surprised at the infrequency of hydroceles of the cord. He agreed with Mr. Jordan's nomenclature; but he would like to know whether these hydroceles could not be submitted to radical cure.—Mr. FURNEAX JORDAN, in reply, admitted the force of Mr. Rivington's statement, but it might be said that all the varieties of hydrocele of the cord were, strictly speaking, congenital. All cysts were not perfectly closed sacs—e.g., the contents of a sebaceous or of a lacteal cyst could sometimes be pressed out. He did not think the term "hour-glass" applicable to the form in which the communication with the abdominal cavity persisted. In neither of his cases had there been any hernia. Hydrocele of a hernial sac occurs generally late in life, and results from the prolonged use of a truss. As regards treatment, in the first case, application of a truss produced relief from pain, but no visible diminution in the swelling twelve months afterwards. Such hydroceles might safely be treated by the injection of iodine, or by means of a seton soaked in iodine, the latter in some respects having an advantage over the former. If injection be practised, pressure should be applied at the inguinal ring during the injection, so as to shut off the peritoneal cavity. The case related by Dr. Harley was probably one of fatty tumour of the cord, or a fine omental hernia which had coiled up in the hernial sac.

A paper was then read on a "Case of Noma, in which moving bodies were observed in the blood during life," by ARTHUR ERNEST SANSOM, M.D. Lond. The history of the case shows that noma must be added to the list of diseases in which bacterioid particles in active movement are present in the blood and the fluids. These moving particles have many special characters, and have been probably hitherto undescribed. It is proved also that the fluids in the disease possess the faculty of virulent infectiveness. The author desires to express his obligation to Mr. J. Needham, late house-surgeon of the North Eastern Hospital for Children, for the painstaking manner in which he recorded the observations in the case.—1. *General History:* Alice C——, aged four and a quarter years, was admitted an in-patient of the North-Eastern Hospital for Children under the care of Dr. Sansom and Mr. Tay, on Feb. 12th, 1876. Her disease commenced a fortnight before admission, with pain in the left cheek; she had had no other disorder. Very great prostration occurred and increased till admission, when she was found anæmic and drowsy, but not emaciated. The left cheek was indurated, and the surrounding tissues œdematous. Sloughing rapidly took place, the cheek became perforated, and the inferior maxillary bone necrosed. Copious hæmorrhage ensued on the third day after admission; on the same day broncho-pneumonia set in; the following day general œdema. The child died on the eighth day after admission. The *post-mortem examination* revealed very extensive necrosis of the tissues surrounding the left cheek or left side of the tongue, complete sloughing of the temporal muscle, and necrosis of both superior and inferior maxillæ. The bases of both lungs were in a condition of consolidation from broncho-pneumonia. The organs generally showed no morbid signs other than extreme anæmia. *Microscopic examination of the blood during life* was first made on the third day after the child's admission. The white elements were in excess, their protoplasm seemed unusually granular, and many existed in fragmentary condition. Examined by a high power (7 and 8 Hartnack), a large number of small highly retractile bodies were seen in active movement; these resembled minute colourless crystals their motion was usually rectilineal, and sometimes in opposition to a current; two or three attached to a red blood-corpuscle were observed distinctly to move the latter. The movements were quite dissimilar to others, evidently Brownian, observed in the same field. Reagents acted upon them variously; whilst weak solutions of carbolic acid and of quinine caused the particles to come to rest, weak solutions of potash and of sulphuric acid appeared to stimulate the movements. The number of these motile bodies varied greatly at different times. After hæmorrhage and fall of temperature they were greatly reduced in number; again, when temperature had risen to 103° F. they were in great abundance. When they were numerous they tended to form groups resembling zoogloea. In size they were about one-twentieth part of an ordinary red blood-corpuscle. Shortly before the fatal issue, ordinary bacteria were observed in addition to the translucent bodies. The red blood-corpuscles presented great variation in size. Translucent bodies exactly resembling those observed in the blood were found in the urine, examined immediately after it had been voided, and a large number were seen in the fæces. The discharges from the wound also manifested them in abundance, intermixed with the usual organisms accompanying putrefaction. *Investigations concerning the infective characters of the blood and the secretions* were commenced on the second day after the fatal issue, the fluids used for inoculation having been preserved in sealed capillary tubes. A healthy mouse inoculated with a minute quantity of blood from the right auricle died on the day following the inoculation, and on examination showed evidences of peritonitis, the exudation containing a large number of motile, translucent bodies, exactly resembling those present in the blood of the child. A like inoculation was performed on a guinea-pig, which died five days after the operation. The signs observed were those of intense cellulitis of the abdominal wall about the site of inoculation; peritonitis; the blood, especially that obtained from the vena cava and from the right cavities of the heart, was found to contain a vast number of the special translucent bodies. Inoculation of the fluids from the seat of the noma was practised upon a mouse. The animal died the following morning, but none of the characteristic bodies were found in the blood. In the case of a cat also inoculated with a minute portion of fluid obtained from the diseased part of the cheek of the child, though intense peritonitis occurred, there was a complete absence of the motile translucent bodies from the blood. It would appear therefore that, whilst inoculation of the fluids derived from

the diseased tissue (with the decomposing matters which they necessarily contained) induced peritonitis without discoverable alteration of the blood, inoculation of the diseased blood produced septicæmia, with the manifestation of the characteristic motile particles observed in the original disease.—Dr. J. HARLEY said that, as noma supervened upon pneumonia, he thought it worth considering whether the particles described by Dr. Sansom might not have resulted from the breaking down of clots found in the pulmonary vessels. That blood-clot does readily break up under certain conditions there was no doubt; he had often seen it in fever cases, where the blood in the ventricle might become quite grumous. Another explanation of the nature of the bodies described by the author was indicated both in his descriptions and in the drawings—viz., their crystalline appearance. Might they not be of inorganic nature, and deposited from the blood. In either case, however, it was difficult to account for their movement.—Mr. HULKE could not accept the theory, started by Dr. Harley, as to the cause of noma—a theory which ascribed noma to arterial thrombosis, dependent upon embolism, having its source in the plugged vessels of pneumonic consolidation.—Dr. HARLEY, replying, said that Mr. Hulke had correctly interpreted his meaning. He had no hesitation in saying that noma was nothing more than direct gangrene, due to the plugging of bloodvessels by the products of disintegration of clots. He had repeatedly seen gangrene in fevers, where broken-down clots were found in the heart after death, and the rapid development of noma proved it to be due to such a cause. He held, further, that in 80 per cent. of the cases of noma there was a pre-existing pneumonia, in which the pulmonary bloodvessels were blocked, and that the gangrene was due to detachment of the clots from these bloodvessels, and their arrest at the seat of the disease.—Mr. HULKE fully admitted that the bloodvessels of the sphacelated part were plugged, but he questioned Dr. Harley's statement as to the origin of the thrombi. He should have thought rather that the pneumonia was a secondary phenomenon.—Mr. GODLEE inquired whether the bodies described in the paper differed markedly from ordinary bacteria, and also whether Dr. Sansom considered that there was any connexion between the organism and the disease. He did not himself think that the presence of such bodies in the blood (especially in young subjects) proved any such causal connexion. Thus he had examined the blood in several cases of acute necrosis, but in only one had he found organisms; and the examination of the blood in a case of cancrum oris yielded a negative result.—The PRESIDENT, remarking that there was an old Latin proverb, the vulgar interpretation of which was "No cobbler beyond his last," said that he would not venture to make any remarks upon the microscopic observations detailed in the paper. He could not, however, allow Dr. Harley's statement to pass, as to noma in children supervening upon pneumonia. His own observations had certainly not led him to that conclusion; for although in almost all cases of noma pneumonia was present, it was a consequent and not a precedent of the former. Pneumonia in children was very frequent; noma exceedingly rare. If noma followed ordinarily upon pneumonia in the manner suggested, one would expect to get gangrene developed now at one part and now at another; but this form of gangrene occurs invariably about the face and month, and begins always in the same manner. Pneumonia followed upon noma just as it follows on other exhausting diseases; and, as in Dr. Sansom's case, the pulmonary affection is developed towards the end of the disease.—Dr. SANSOM, in reply, said that he had carefully avoided drawing any inference from the facts stated in his paper; but the facts pointed to the disease being one of the blood-poisons. In the case described there was not, on admission into the hospital, the slightest evidence of the broncho-pneumonia which subsequently developed. He had lately had an opportunity of examining the blood from another case of noma. In that, as in Mr. Godlee's case, he had found no organisms at all, so that there were, no doubt, varieties of the disease. The "organisms," or rather "bodies," differed much from bacteria, and were strikingly like crystals in appearance. But they were endowed with the power of active motion quite as much as any bacteria. Doubting that such crystalloidal bodies could possess motility, and seeing them in places massed together, like the "zoogloea" form of micrococci, he thought it possible that the bodies in question were imbedded in diffluent protoplasm of extremely delicate nature, and invisible by high microscopic powers. The movements would then be due to this substance, which was assumed to exist, as in Cohn's "zoogloea" there were collections of micrococci imbedded in gelatinous substance. That the disease possessed infective properties to a high degree was evident from the inoculation experiments which he had performed; but he had not proved that the infective material resided in the bodies found in the blood. As to their being accidental or typical and specific of the disease, he could not yet say. He simply placed these facts on record.

The meeting then adjourned.

Reviews and Notices of Books.

The Monthly Microscopical Journal. October, 1877. No. CVI. Hardwicke and Bogue.—This number only contains two articles, in consequence, we presume, of the indisposition of the editor, Dr. Henry Lawson: one by Herr Grunow "On New Diatoms from Honduras," to which some notes are added by Mr. F. Kitton. Four plates illustrate this paper. The second article is by Mr. F. H. Wenham, and contains some additional remarks by that writer on the Measurement of the Angle of Aperture of Object-glasses. The method described in his paper consists of placing an opaque screw with a straight-edge set in focus in the centre, exactly bisecting the field of view, so that a ray from the exterior or margin of transmission of the object-glass shall be confined to the centre only by the edge of the screen. The direction of this ray, as indicated by a distant image, is marked as zero on a sector scale. The screen is then reversed, readjusted for focus and position, so as to cut off the other half, leaving the first open. A ray would thus pass from the opposite extremes of the circle of light transmission of the object-glass and through the centre of focus; the true angle is now indicated, as all the oblique rays deviating away on either side of the centre of focus are stopped off during the measurement. He has recently made an improvement on this plan by adapting a cap with a pin-hole stop, like that used in a Gregorian telescope, over the concave examining lens, which greatly improves the distant telescopic vision, and increases the range so that the screen can be seen on one side of the field. The cap is then removed, and the object is brought by the rotation on either side till the approach of the median edge causes it to vanish.

Epitome of Skin Diseases, with Formulæ for Students and Practitioners. By TILBURY FOX, M.D., F.R.C.P., Physician to the Department for Skin Diseases in the University College Hospital; and T. C. FOX, B.A. (Cantab.), M.B. Second Edition. London: Henry Renshaw.—Little need be said in commendation of a new edition of this excellent little work. The fact that in six months the first edition was exhausted may be taken as very satisfactory evidence of its utility. In the second edition the authors have, by making some alterations and a few additions, still further enhanced the value of their work. In its improved form it is a boon alike to the student and the practitioner.

Erfahrungen über die Wundbehandlung nach Lister. Von Prof. Dr. DITTEL. Wien, 1877.—This pamphlet, which runs to the length of 179 pages, many of which are filled with tables, and many more with short accounts of cases treated on Lister's method, tells how the author had an opportunity of observing the practice of Prof. Lister in 1875, and, on his return home, immediately proceeded to adopt it in his own hospital. The results he has obtained with it in 129 cases are carefully noted, and he appears to have been in every instance thoroughly satisfied with its efficacy. The

cases he has tried it in are—(1) wounds of the soft parts; (2) fractures; (3) inflammations of soft parts; (4) inflammations of the synovial membranes; (5) osteal and periosteal inflammations; (6) caries; (7) necrosis; (8) neoplastic formations; and (9) hydroceles, hernia, and ovarial cysts. So far as we may gather from his tabulated results the treatment seems to have been very successful in his hands.

Physiological Tables, for the use of Students. Compiled by EDWARD B. AVELING, D.Sc., F.L.S. London: Hamilton, Adams, and Co. 1877.—This is an attempt, and, so far as it goes, a successful attempt, to group the general facts of physiology in a regular order. We fail, however, to see the value of such a compilation for the student. To learn even the elementary facts of physiology in this way would be almost hopeless, though no objection could be raised to Dr. Aveling's *brochure* forming a model by which the student might be guided in making his own abstract of any one of the many excellent physiological text-books he may be engaged in reading.

Die Sterblichkeit der Stadt Buda Pest in den Jahren 1874 *und* 1875: mit deren Ursachen von JOSEPH KÖRÖSI. Berlin: 1877.—This is a very carefully worked-up series of death-rates compiled from official sources of the town of Buda-Pest, and possesses the advantage of a good index. Sex, age, religion, and period of year are severally given. The population, including the military, is 309,208, and in 1875 the mortality was 40·2 per 1000, an unenviable proportion. The largest number of deaths was caused by phthisis and bronchial and catarrhal affections, these forming more than half of the whole mortality; next in frequency comes catarrh of the intestines, then convulsions and congenital debility, and then small-pox. The list closes with cancer of the stomach, of which disease there was a large relative number. The influence of the crowded dwellings and unhealthy conditions of life prevalent in Buda-Pesth is very fully brought out.

La Principauté de Monaco, considérée comme Station Sanitaire. Par E. KUNEMANN. Paris. 1877.—This little pamphlet calls attention to the advantage as a health resort of the principality of Monaco. The author speaks in high terms of its salubrity, of its open position, sheltered, however, by lofty hills from violent winds, and of its high yet even temperature. He recommends residence here for those who are debilitated, for those affected with phthisis and chronic bronchitis, and in gout and chronic rheumatism.

Pet Moments. By R. A. DOUGLAS LITHGOW, F.R.S.L., L.R.C.P., &c. London: Provost and Co.—We are always glad to notice fresh instances of men in the laborious ways of medicine lightening their hearts and refreshing their minds by cultivating the society of the Muses. True it is not always desirable that they should publish to the world the evidence of the degree in which the muses have responded to their overtures, but when they do so they should be criticised with friendly justice. The present author secures such criticism by explaining that his little poems have been written in intervals of study and of active professional work, at all hours of night and day; but he need not have done so. There are many verses, some of them written *impromptu*, very happy in structure and full of very beautiful and pleasant thoughts, which will come very gratefully and beneficially to many readers in the varied moods and experiences of life, and the latter book is full of that sympathy with nature and faith in God which are so essential to true poetry. It is ascribed, by permission, to Mr. Tennyson, and is not unworthy of the great compliment.

MR. ARTHUR WOOD, L.S.A. Lond., the Deputy Coroner, has been elected Coroner for the North Riding of Yorkshire, *vice* Ness, deceased.

THE LEAMINGTON EXHIBITION.

THE exhibition of sanitary appliances and apparatus which has been held in the Drill Hall at Leamington during the meeting of the Sanitary Congress there was one of considerable interest, and must have served its purpose of diffusing some knowledge of practical matters among the sanitarians, physicians, architects, builders, and amateurs who attended the Congress.

While some of the exhibits were of a trifling and trumpery description, others were deserving of serious attention, and among these we may notice the varieties of drain-traps which were on show.

Field's Patent Self-acting Flush Tank is the invention of Mr. Rogers Field, and was exhibited by Messrs. Bailey and Co., of the Fulham Potteries. The effect of this invention is to concentrate the flow of small quantities of slops and sewage, and it is particularly designed for use in tenements where no regular system of sewerage exists. The apparatus consists of a stoneware tank, of a capacity varying, according to the necessities of the case, from twelve to forty gallons. This tank has a grating and a trapped inlet, and is placed where it can conveniently receive the sink water and house-slops. It is not meant to receive any solid sewage matters, which in country places should always be treated on some dry principle. The tank has a ventilating pipe, which is carried to a convenient height, and owing to this and its trapped inlet, it can hardly be offensive at any time. The chief feature in the apparatus is its outlet, which consists of a syphon rising to the highest level of the tank. By this means the tank does not empty itself until it is full, and then it does so rapidly and by a full stream, which carries all suspended matter before it. Where no regular system of sewerage exists, it is recommended that the outlet of the tank should be connected with "sub-irrigation drains laid in a garden or other small plot of available ground." The sewage flows out of the joints of the drain-pipes and enriches the soil. The apparatus is so contrived that the tank and all its appurtenances are easily accessible, and can be readily cleaned. The tank intercepts the fat, which is a never-ending cause of trouble in the disposal of house-slops. The only criticism which one would feel inclined to make on this very excellent apparatus is that, its action being wholly automatic, it is not possible to regulate the flow of water in accordance with the necessities of the soil to be irrigated. When it is merely used for flushing drains the remark of course does not apply.

The Patent Edinburgh Air-Chambered Sewer-Trap is also an excellent contrivance for interposing an air-chamber between the soil-pipe of a house and the sewer. With ordinary sink-pipes and waste-pipes it is, of course, an easy matter merely to cut them off and allow an interval of six or seven inches between the end of the pipe and the grating of the gully; but on æsthetic, if no other, grounds there is some difficulty in doing the same with a soil-pipe. This invention of Messrs. Potts & Co., of Handsworth, Birmingham, seems to meet this difficulty. It consists of an air-chamber made of earthenware about three feet long and of a gradually increasing depth, so that a good slope is provided for the fall of the sewage. The air-chamber is open to the air and is covered by a grating. It is provided with a diaphragm, which serves to create air-currents in the chamber and to guide the sewer gas towards the grating. The air-chamber communicates on one side with the soil-pipes, waste-pipes, and water-pipes of the house, all of which are ventilated, and on the other side with the sewer, which is also trapped and ventilated. With such an arrangement as this it would seem almost impossible for any sewer gas to find entrance to a house.

Messrs. Gascoyne & Sons exhibit their patent cast lead D trap for watercloseets, which is an improvement on those made by hand.

The Cardwell Stench-Trap, designed for street-gullies, is an apparatus of some merit. It is so designed that the solid matter collects in a sludge-box, which can be removed and emptied in a very short time, while the water flows off through a water-trap into the sewer. This water-trap is never unsealed, even during the emptying and cleansing of the sludge-box; and as there is a ventilating pipe on the sewer side of the water-trap, it is hardly possible for any

appreciable quantity of sewer-gas to rise through the grating and annoy the passers-by upon the pavement.

The Patent Dry Stench-Trap, shown by the Bletchley Ironworks, is a simple contrivance. It consists of a pan placed over the sewer, protected by a grating, for the reception of the water. This pan is closed laterally by an accurately fitting valve, which is forced open by the pressure of the water, and is then immediately closed by the force of gravity. This machine is probably an effectual barrier to the reflux of sewer gas, but all drains to which it is fitted should be properly ventilated.

The ventilating apparatus on show comprises many articles of interest and practical utility.

Mr. Hinckes Bird's method of providing at small cost a hopper inlet for fresh air is deserving of mention. The following are his directions:—"At nine inches above the height of an ordinary person, say 6 ft. 6 in., place a small hook in moulding of shutter case *farthest* from the window on each side, and another two inches *below* the moulding on each side, in front of window-sill. Tightly stretch across the window a length of linen or calico, with small loops or rings to attach to the four hooks, leaving the calico nine inches larger than is required to hang down loosely on each side; this forms what is, I believe, technically called by architects a 'hopper.' Throw up the lower sash as required, and draw the blind down to the lower rail of the window-sash, wherever it may be. The air enters in full volume, strikes against the broad surface of the calico, and is directed upwards towards the ceiling. Here is the advantage of a window more or less open, with *privacy* and *without draught*."

Boyle's Patent Air-Pump Ventilator is a very simple contrivance, and is said to be effectual: In it, it is sought to produce a partial vacuum by the blowing of the wind over a tube, by which the heated air from the chamber to be ventilated is made to pass up rapidly to fill the vacuum produced. The manufacturers produce much valuable testimony in favour of this invention, which seems equally applicable for the ventilation of buildings and ships.

In the Patent Exhaust Cowl of Messrs. Scott, Dunn, & Co. we have the same principle invoked for the purpose of causing an ascending current. Messrs. Howorth, of Farnworth, endeavour to produce an up-current by mechanical instead of natural means, and their patent screw ventilator contains an Archimedean spiral, which is kept revolving by a hood which is fitted with curved vanes which are acted upon by the wind. The screw lifts the foul air out of the building, as it were; and it is said that these ventilators are of great use when great power is required, as in manufactories which are filled with solid particles of dust. Messrs. Thomas Walker & Co. show a very good contrivance for ventilating a watercloset, by which, when the lid is closed, any effluvia from the pan of the closet must pass directly into the air. Messrs. Doulton show a large assortment of their Lambeth goods adapted for sanitary purposes; and there are many other exhibits which we omit solely from want of space. The exhibition will remain open until the 18th inst.

"THE CAUSES OF INSANITY."

To the Editor of THE LANCET.

SIR,—I should be glad if, in your courtesy, you would allow me space to reply to your leading article of the 22nd ult. relative to the statistics recently issued by the English Commissioners in Lunacy on the "causes of insanity."

Your main objection to these statistics of the Commissioners appears to be twofold: firstly, that as it is not the province of the Commissioners to enter upon such an investigation as that referred to, so the constitution of the Board renders the task unsuitable; and, secondly, that the medical superintendents of asylums are not in a position to furnish adequate data, both because a reliable previous history of a case is not to be obtained when once the patient comes to be admitted into an asylum, and also, as appears to be implied, from the want of general discriminating power on the part of medical officers of asylums, which leads them, when information fails, to supplement it by "afterthoughts" of very questionable reliability.

With regard, firstly, to the alleged incompetency of the Board of Lunacy in the consideration of such a subject as the causation of insanity, I would point out that, so far at least the Commissioners have committed themselves to no speculations or opinions, but have contented themselves with the accumulation of an extensive series of data which their own exalted position and the willing co-operation of asylum physicians afforded them special facilities for collecting. I do not say that the system of tabulation of causes required by them is not open to grave objection; but the same may be said of every other system hitherto adopted, and the subject is one of very great difficulty.

And I would remark, in the second place, that when in their Report of 1876 the Commissioners stated that they did not consider it their duty to enter at any length into the consideration of subjects out of the beaten track of their ordinary investigations, the observation was fastened upon by more than one of your contemporaries, who contended that for the Commissioners to restrict themselves to the literal performance of a statutary task was to take an inadequate view of their most important functions.

With regard to your next contention, you express surprise that the Commissioners, while appreciating the unreliability of alleged causes of insanity as given in certificates of lunacy, should have cared to inquire further of medical superintendents of asylums; in other words, you appear to hold that the special knowledge and experience of asylum physicians are of no more avail in leading up to a right conclusion than is the untutored ignorance (medically speaking) of a relieving officer or the misguided fancy of the patient's relatives.

I venture to think that with regard to patients admitted into private asylums the evidence of their relatives is of value, and that, in the case of paupers, the evidence of the relieving officer is also valuable in arriving at a conclusion as to the cause of the insanity, provided always that in each case the information given and opinions expressed are duly weighed in the balance by the alienist physician, and tested again and again, if need be, in the light of subsequent events, as the visits of patients' relatives afford opportunities of doing so. Believing this, I cannot but consider that a statement which presents the earnest endeavour to arrive at that circumstance, or, more probably, that combination of circumstances, under which the patient has become insane, in the light of vain and futile guesses, is both unjust and liable to be fraught with mischievous consequences, by, perhaps, inducing some physicians to relax their efforts in this direction. Is it said that the causes adduced are not really causes, but merely circumstances which would have been powerless to induce insanity had there not been *something* in the background, which *something* is the cause of the insanity? The reply is that admittedly there are predisposing as there are also exciting causes. With regard to the former we know comparatively little, and for their removal we asylum physicians can do less; but with regard to those adverse influences, without whose influence the predisposing condition would generally be insufficient to induce insanity, we may, if we try aright, find out much. And to lose sight of these influences is, in my opinion, just as unwise as it would be to neglect the presence of some noxious miasm which, acting on the community, has taken some and spared others, because some were susceptible and others, we know not how, were not.

It is argued, finally, that not by asylum physicians, but by those outside, who watch the cases previous to certification being effected, are the causes of insanity to be discovered. I reply that undoubtedly cases do occur in which the family physician will be the safest guide in the search for the cause of the insanity in his patient. But these cases are, I believe, quite exceptional, and especially so among the poor of the community.

I venture to conclude, then, in opposition to the views expressed in your leader, that on us asylum physicians lies the duty, as also the responsibility, of gathering information wherever we can as to the exciting causes of insanity, of sifting such information with judicious care, and of holding it up to the common view for the common good.

I remain, Sir, yours obediently,

October 9th, 1877. H. C. M.

*** We have nothing to add to the expression of opinion which our correspondent condemns. We were not among those who criticised the strict adherence of the Commissioners in Lunacy to the path of duty; on the contrary, we congratulated them on the wisdom of their reserve, and regret their new policy.—Ed. L.

THE LANCET.

LONDON: SATURDAY, OCTOBER 13, 1877.

WHEN the Select Committee of the Lords was appointed for the purpose of inquiring into the prevalence of habits of intemperance, and into the manner in which these habits have been affected by recent legislation and other causes, we were much pleased. No subject is more worthy of consideration by the best Committee that can be appointed by either House. One of our chief anxieties was that the Committee, in taking evidence, should not omit to take medical evidence. In various ways we gave expression to this wish. We are glad to see by the third Report from the Committee that this suggestion has been acted upon. There has probably never been so complete and exhaustive a mass of evidence on the subject of intemperance as these Reports will, when completed, contain; and we may safely venture to say that, in point of interest and importance, the evidence of the medical witnesses will compare favourably with that given by any other class of witnesses. The medical witnesses examined up to the end of the recent session were Sir WILLIAM GULL, Dr. BURDON-SANDERSON, and Dr. LAUDER BRUNTON. This selection, as far as it goes, is good; but we trust the Committee, before it closes its sittings, will be careful to take the evidence of other medical and pathological authorities, including that of general practitioners in various kinds of communities, in large towns, small towns, and country districts. It is probable that such witnesses would be able to throw considerable light on the extent to which habits of intemperance prevail, and on the causes of it where it does prevail. Meantime we shall give our readers a short account of the medical evidence already given by the three witnesses named, who have testified on this most momentous subject as scientific men who hold scales in their hands with which to weigh questions of a social and medical character impartially. We shall give the substance of the evidence of the witnesses, and give it in the order in which they were examined by the Committee.

Dr. LAUDER BRUNTON said the popular notion of taking "a good stiff glass of brandy to keep yourself warm" was quite a delusion, supporting his opinion by reference to the lumberers in Canada, who during winter will not allow spirits to be kept in the camp, and to the experience of Arctic expeditions, and also to a rarely scientific gamekeeper to whom Sir JOSEPH FAYRER offered a drink from his flask one day while deerstalking, and who refused, saying, "No, Sir, it is too cold." He thought that a tired man before beginning his meal might get good from a glass of wine, and that "often alcohol taken with warm water at night, especially by a person who is cold, is an excellent means of bringing on a comfortable sleep," acting thus by dilating the blood-vessels of the body generally, and so producing anæmia of the brain, on which sleep greatly depends. But he added, "If a man eats well and sleeps well he does not require alcohol, and he is better without it." He referred to experiments showing that alcohol retards the growth of young animals. He urged that great pains should be taken to relieve the craving of drunkards by other than alcoholic means, quoting his favourite story of an observation by an old drunkard—a Scotchman: "The neighbours aye speak of my drinking, but they never speak of my drouth." He referred to a paper by Dr. DOYLE, read to the Obstetrical Society, maintaining that drinking in women was often associated with a disordered or diseased condition of the uterus. Referring to drunkards who drink in fits, he compared their bouts to epilepsy, and mentioned two or three cases in which the anti-epileptic treatment was very successful. He recommended as substitutes for drink, and as a remedy for the "craving," carbonate of ammonia with gentian, with a little tincture of capsicum; in the intervals of the craving general tonics, especially iron. He mentioned that alcohol was a true food, "an inconvenient food in health, but a very convenient food in fevers." Therapeutically he regarded alcohol as one of our most valuable remedies. As regards restraint of drunkards, he thought a power of detention should be given, and that if you could keep a drunkard twelve months from drink he might be able thereafter to do without it.

Dr. BURDON-SANDERSON concurred in every point of Dr. BRUNTON'S evidence. He said it was "clearly established" that two ounces of pure alcohol was the limit which an ordinary man can take so as to have it used or oxidised; when not oxidised it accumulates, and so becomes injurious. Alcoholism, in its various forms, was the ultimate result of non-combustion or non-oxidation of alcohol. In this sense—the sense of being oxidisable, and so saving tissue, up to the amount of two ounces in the twenty-four hours—Dr. SANDERSON maintained that alcohol was a food. As a food it was capable of conversion into heat. "The only use that we know it can be put to is that of combustion. At the same time the question remains open whether it may not be converted into other kinds of force." He admitted that alcohol, in a way different from all other kinds of food, deteriorated the organs; and that though a man might oxidise two ounces of alcohol, he certainly would not recommend him to take it; that quantity would be altogether inadmissible as a frequent dose. He would not recommend alcohol to a healthy man. He said that it exhilarated and promoted circulation. "In cases of illness, particularly fevers, it was quite indispensable." Asked whether one ought to encourage or discourage its use, he said, "My belief is that upon the whole the human race would be situated just as favourably if the use of alcohol did not exist." He expressed himself emphatically in opposition to the legislative prohibition of the use of alcohol. The adaptedness of alcohol to the condition of fever consists in this—that a person when in fever does not require to exercise much muscular power, but he does require to keep up his temperature, and he must have the materials for this purpose; and, as Dr. BRUNTON explained, alcohol serves as a substitute for tissues of the body. Alcohol was injurious when taken in cases of prolonged muscular exertion and in cases of exposure to cold.

Sir WILLIAM GULL, in his evidence, gave an account of the history of medical doctrine as to the use of alcohol, including Dr. TODD'S—that diseases were chiefly due to debility,

and required alcohol almost universally. Since then there had been a great change. At present we regard much "the physiological course" of disease, and believe that alcohol has a value, but only a subordinate one, chiefly that of a sedative of the nervous system, calming the patient, till by natural processes he is cured. The principal illustration of the use of alcohol taken by Sir WILLIAM was in the case of typhoid fever with high temperature or uncontrollable delirium, and when opium would be injurious, and probably fatal. Though Sir WILLIAM thinks we could not do without alcohol as a drug, "it is still over-prescribed."

In conditions of fatigue, Sir WILLIAM thought that instead of flying to alcohol, people might very well drink water, or take food, and would be very much better without the alcohol. "If I am fatigued personally, my food is very simple. I eat the raisins instead of taking the wine. I have had very large experience in that for thirty years." He "thinks" a man occupied in the open air, doing a good deal of work, would find "some beer" a good form of food. But "he thinks beer is overdone." "In the case of BARCLAY and PERKINS's draymen you can see how it is overdone." Sir WILLIAM thought that a moderately healthy person, so far from being benefited by alcohol, would be injured "as regards the intellect.....All alcohol, and all things of an alcoholic nature, injure the nerve-tissues *pro tempore*, if not altogether, and is certainly deleterious to the health.....I should say, from my experience, that alcohol is the most destructive agent that we are aware of in this country..... I think there is a great deal of injury being done by the use of alcohol in what is supposed by the consumer to be a most moderate quantity, to people who are not in the least intemperate, to people supposed to be fairly well. It leads to degeneration of tissues. It spoils the health and it spoils the intellect.....I do not think it is known how alcohol acts on the human body, but I know it is a most deleterious poison.....I would like to say that a very large number of people in society are dying day by day poisoned by alcohol, but not supposed to be poisoned by it." As to breaking off the supply of alcohol to persons suffering from alcoholism, Sir WILLIAM gave a very clear note. "I should not be afraid to stop it altogether in most cases. I should think it highly desirable to stop it altogether. Of course it depends upon the age of the patient, and the likelihood of doing him any good at all.....It produces many diseases of the liver, from which arise disordered conditions of the blood, then diseased kidneys, diseased nervous system, or gout, or diseased heart.....I hardly know any more potent cause of disease than alcohol." Sir WILLIAM said in the higher classes there is great temperance, more abstinence than in the middle classes. He could not, from his own experience, assert that drinking among women was increasing. Drinking between meals he condemned absolutely as "most injurious"; also the "eleven o'clock beer" of servants, remarking that domestic male servants are amongst the most unhealthy classes of the population, only to be cured by abstinence and purging. He magnified water as "of all diluents and solvents of food" the best. On the question of restraint he spoke diffidently. He distinguished carefully between a habitual drunkard and a dipsomaniac, heredity attaching not to mere drunkenness, but to mental defect leading to it. He advocated punishing a mere drunkard, and doing it early. He would publish the name of a man found drunk, and if found a second or more times, he would put the number of times opposite his name for public reprobation, although quite aware that society would not at present agree with him in this. Sir WILLIAM GULL is of opinion that the whole question of drunkenness cannot be dealt with by legislation, but must be dealt with by society at large, by better knowledge of the disadvantage of stimulants, and by a better moral condition of the whole of society.

We have long felt, and sometimes said, that statesmen will never realise the gravity of the drink question till they put themselves in the way of getting some information about it from medical men. We feel thankful to the medical witnesses already examined by the Lords' Committee for the masterly and clear way in which they have spoken. They all express what we believe to be the very general view of the profession, that alcohol as a medicine is indispensable, but that for people in health alcohol is, to say the least, perfectly dispensable, if not undesirable. Sir WILLIAM GULL's evidence may seem too strongly biased against the customary ways of taking alcohol, but if considered carefully and as a whole, it must be admitted to be an admirable statement of the views of the best practitioners. We should recommend temperance societies to distribute broadcast the medical evidence, and especially that of Sir WILLIAM GULL. It will be all the more influential for not going the whole length of "teetotalers," though we gather that Sir WILLIAM in his personal habits is not much at variance with them. But the warning that he gives of the number of respectable people, "not intemperate," that are dying day by day of alcohol, comes from a large experience, and cannot be disregarded. We entirely endorse his opinion on this point. Practically the question, from a physiological and medical view, is settled. We cannot dispense with alcohol in medicine. There are medical men, indeed, who believe otherwise, and who maintain that disease, even fevers, are better treated without alcohol. We shall hear more of this doctrine; but, in the meantime, practically alcohol is regarded by nine men out of ten as a most valuable medicine to be used with discrimination. But the time has fully come when any medical man prescribing it carelessly or indiscriminately will be blamed by the general judgment of the profession, both from an ethical and a scientific point of view. Then, as to the physiological or ordinary use, Dr. BRUNTON, Dr. SANDERSON, and Sir WILLIAM GULL enunciate views which tend to reduce the value of it for healthy people to a minimum. If Sir WILLIAM GULL is right in thinking that a great deal of injury is done by the use of alcohol in what is considered a most moderate quantity, what shall we say of the injury that is done by the "soaking" use of alcohol which is involved in taking it between meals, before breakfast, and at all sorts of odd times? We defer to another occasion any discussion of the duty of the Legislature in regard to this question; meantime we urge upon every medical man the duty of never prescribing alcohol without considering his responsibility, and upon every sensible man the necessity of *not* relying upon it for supplying material for making blood or tissue.

FROM the serene shade of the Social Science Congress at Aberdeen to the bewildering iridescence of the Sanitary Congress at Leamington is, indeed, a startling change. Mr. EDWIN CHADWICK, after soberly endeavouring, as public health Mentor, to enlighten the northern Congress, must, when he visited the midland Congress, and while he listened to the oratory of Dr. B. W. RICHARDSON and Mr. BRUDENELL CARTER, have had an uncomfortable suspicion that he might have done scant justice to his scheme—if, indeed, he were not wholly dazed by the teeming suggestions of the one orator and the brilliant periods of the other. He had taught the sedate middle-aged congress in the north, amidst the subdued murmurs of approval which befitted so sober an assembly, that public health was about to emerge from the empirical into the scientific stage. He found in the midland counties that public health had cast the slough of empiricism, and, imped with oratorical plumes, had soared at once into the very empyrean of sanitary science.

Obviously the public health scientific Aurora has come, when the most recondite question in the pathology of the communicable diseases can be discussed as a popular subject before a general audience of educated persons. True, after the manner of the revered ISAAC WATTS's sluggard, the public is not yet fully awake to the fact, and turns uneasily in its bed of ignorance, plaintively or sulkily (as the case may be), complaining of being aroused, and begging to be let slumber a little longer. But, the heavy eyelids notwithstanding, there is the dawn. If Dr. RICHARDSON's address at Leamington had been an isolated phenomenon of the autumn in the midland counties, it would have been remarkable. But it was not a solitary one of its kind. When Dr. RICHARDSON spoke, hardly had the echoes ceased of Dr. TYNDALL's voice before the Midland Counties Institute at Birmingham, in which he had daintily and airily (if incidentally) dealt with free will as a popular topic. The audacity begotten of genius would alone have dared to present such subjects as those of the freedom of the will and (cognate to this particular question in its peculiar sphere) the intimate pathology of contagion as popular themes. Such audacity TYNDALL and RICHARDSON have in common. It is provoking that these themes, or, in so far as the pathological theme is concerned, so much of it as rests in the so-called "germ theory," should suggest the Miltonic conception of the locality fittest for their discussion (such the tyranny of associated ideas). Not that we would imply for a moment that any just parallel exists between such highly respectable and reputable places as Leamington and Birmingham and the locality in question, or that the Congress in the one place, and the Institute in the other, are to be held as homologous with that earlier assembly, who, as Milton sung, apart retired, charmed the soul with eloquence as they discoursed sweetly, with elevated thoughts and reasonings high.

Now, the "germ theory," it might have been presumed (as the doctrine of free will), would have afforded an amply sufficient ground for intellectual gymnastics for a few generations to come. But Dr. RICHARDSON (in this instance, a true pathological JASON), out of the lavish exuberance of his thought, cast among his audience at Leamington three other theories (veritable dragon's teeth), each equal to the "germ theory" in its inexhaustible capacity for provoking discussion. He pitted his so-called "glandular theory" of contagia (is it not possible to invent a more euphonious designation for it?) with the germ theory (not for the first time, but never before in so finished a form). He advanced a second theory of the nervous origin of contagious diseases, and also a third theory of their heredity. May he live to enlighten many congresses on these theories, and to point out the straight and narrow way which leads from the sanitary slough in which we dwell to the empyrean heights which are their rightful habitation.

Happily, Mr. BRUDENELL CARTER, although soaring high, took a less lofty flight into the sanitary empyrean than did Dr. RICHARDSON. He in felicitous phrase just touched the hem of Dr. RICHARDSON's widely-flowing pathological garment, and permitted the Congress to see from another point of view the links which connected the higher flights of pathological speculation with the commoner needs of sanitary work. But there was a cruel, if covert, irony in the title he gave to his address—namely, the "Present *Possibilities* of Sanitary Legislation." He set himself to the inquiry, to use his own words, "What amendments of the law in the interests of the public health are *practicable* in the existing state of enlightenment and opinion?" Surely everything ought to be possible in sanitary legislation when we can have audiences got together without difficulty who can listen appreciatively to addresses like those of Dr. RICHARDSON and Mr. CARTER, but the practicability is (alas!) a very different matter. When Mr. CARTER looks for the "development" of a politician to give practical form to the possibilities he describes, we feel that the soil out of which the growth has to come—the ratepayer, even the species tilled in congresses—is not sufficiently matured for the purpose. "I will be content," said Mr. CARTER, in an eloquent peroration, "to utter the wish that some professional politician of the day may undergo development into a statesman, and may thus become able to perceive the opportunity for the highest statesmanship, which would invite him to enter upon a comparatively untrodden career. I am certain that any man of adequate culture and adequate capacity, who would devote himself to this great subject with a determination to understand it, and with a determination to rouse his fellow-countrymen from their present indifference with regard to it, might, by the patient and well-directed labour even of a few years, write his name upon the pages of history as that of the greatest benefactor of his kind." A noble wish, nobly uttered.

THE case of FREDERICK JOHN CHALKLEY cannot be allowed to pass without notice. It is obviously an instance of mismanagement and neglect. The facts will be familiar to our readers. In another column will be found letters which throw new light on the obscure points of a painful narrative, as previously reported. Mr. WEISS, one of the house-surgeons at St. Bartholomew's Hospital, informs the profession that he did not assert or imply that "no actual danger" would attend the removal of the unfortunate deceased from the hospital. On the contrary, he expressly cautioned the constable ALLINGHAM, who came to remove his prisoner, that grave risks would be incurred, specifying the most

prominent — namely, hæmorrhage and erysipelas. The officer was told that the whole responsibility would rest upon him, and it was on this understanding CHALKLEY was transferred to the police-cells. It follows that any neglect to which the deceased may have been exposed while in custody was shown in the face of special caution. At the same time it is fair to say the existence of fracture of the skull, from which the disastrous consequences ensued, was neither diagnosed nor suspected at the hospital, or, we presume, the removal would have been peremptorily forbidden. The consideration upon which we think some attention should be bestowed, is whether it is prudent to maintain the undefined relations which exist between charitable institutions and the police. If a patient in a public hospital is apprehended on a charge of felony, good citizenship will, of course, demand that the police shall be afforded reasonable opportunities to prevent the escape of their prisoner. A constable may be allowed to remain in the hospital, he may be accommodated with a chair at the door of the ward in which a prisoner is confined; but it should be clearly understood that when accused persons are in a hospital they cannot be removed until *discharged*. It would be well for the police to provide a hospital for their immediate purposes, but if they elect to use institutions supported by charity, they, like the rest of the public, should regulate their conduct by the general rules in force. This is a matter which needs to be discussed on general grounds. At the present moment doubt and uncertainty beset the question of responsibility, and duty is undefined.

Dr. SMILES, the medical officer of the House of Detention, takes up the case after the interval of neglect—with which we have no immediate concern. An opinion based on the report furnished by this gentleman would point to the conclusion that the case was one of ordinary inflammation, extending from the seat of the fracture—in fact, traumatic meningitis,—with trismus as a symptom, by no means unprecedented or unexplained. Had the fracture been detected at an earlier period, the treatment would have been such as to fulfil the requirement of absolute rest. Everything turns upon the failure to recognise the real nature of the injury; and those who have had great practical experience will know how difficult—sometimes impossible—it is to detect a linear fracture of the class ultimately found. Practically the fate of this unfortunate man might have been untoward had he remained in the hospital; but he was probably deprived of the chances of cure by the treatment he received. It is a painful case throughout, and should teach caution to all concerned. There is no ground for especially strong censure; but the system of which this occurrence was the fruit needs to be reformed root and branch. We have continuously pointed out the need of some adequate provision for the prompt treatment of persons arrested in a state of supposed intoxication or illness. Had there been a "hospital cell" with proper attendance at the station to which CHALKLEY was removed, it is fair to assume he would have been at once placed under medical observation, and much of the regret clinging to the case would have been spared. Whether this event will suffice to enforce the need we have repeatedly pointed out remains to be seen. In any case we shall continue to insist on the necessity until the want is supplied.

Annotations.

"Ne quid nimis."

THE LANCET "MEDICAL MEMORIAL."

IT is important that it should be understood we deal exclusively with "the medical aspects of the Penge mystery." This is the position we took up when writing on the subject on the evening of the trial, and we have not swerved so much as a hair's-breadth from that position. We said then, and we repeat, "However just the conclusion at which the judicial inquiry has arrived may appear—when viewed from a politico-social standpoint,—it is impossible not to feel that the case is, professionally speaking, eminently unsatisfactory in nearly all the leading features of its strange history." Within one hour of the verdict, which, in effect, declared that Harriet Staunton died of starvation, we wrote: "We must frankly confess our inability to draw any coherent set of inferences as to 'the cause of death' from the pathological condition described." We complained that not one of the several hypotheses set up by the medical men who made the post-mortem examination was "thoroughly worked out," and we suggested a theory which had not apparently occurred to any one concerned in the case—namely, that the deceased died of "general paralysis." To this last-mentioned conjecture we adhere; it is more strictly in accord with the facts, so far as they are known, than the assumption that the disease was tubercular meningitis; but, as we have more than once explained, the simple purpose of making the suggestion was to show that many diverse constructions, all involving the hypothesis of mortal disease, are permissible, and it follows that the medical evidence will not support the allegation of "murder." In absolute justice, the criminal neglect, of which there is overwhelming evidence, required a severe sentence, but it would not, could not, justify the infliction of the highest penalty. As we insisted last week, "it must obviously be impossible to prove *murder* by starvation without first showing *death* by starvation!" The position is certainly clear, and should be understood.

The memorial, which has been placed in the hands of the Secretary of State, is a strong submission of opinion that the evidence did not afford "*medical* proof" that the death of Harriet Staunton was caused by deprivation of food, or any other form of murder—for example, poisoning. In the absence of such proof, we say the sentence should be reconsidered, and it is for this we pray. We do not speak of "mercy," nor do we plead "extenuating circumstances," or deal with the question of relative guilt. We simply say the charge of murder, which was based on "medical evidence," and so left to the jury, is not proved by that evidence! The allegation thus falls to the ground. More than six hundred medical men, including the most prominent pathologists and practitioners, have signed the protest, and we are supplementing the list of names daily. The movement is solely scientific in its motive and character. In this light alone it must be viewed.

THE BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW.

WE regret that Messrs. J. and A. Churchill have found it necessary to announce their intention to discontinue the publication of this well-known periodical. Commenced thirty-eight years ago, under the able and learned editorship of Sir John Forbes, the *Review* soon attained high rank and importance in periodical medical literature, which for a long period of years it continued to hold. Directed from time to time by Sir John Forbes, Dr. Parkes, Dr. Carpenter, Dr. Sieveking, Dr. J. W. Ogle, and lastly by

Dr. Arlidge, and supported by contributions from Neil Arnott, William Baly, Golding Bird, George Budd, Sir James Clark, Viner Ellis, Wharton Jones, Aston Key, Ranald Martin, Richard Owen, William Sharpey, Edward Stanley, and others, the *British and Foreign* met the higher requirements of the more studious and thoughtful members of our profession, who were benefited as much by the thoroughness as they were entertained by the candour of the criticisms. But the days of Quarterlies are gone! With the demise of the *British and Foreign* we think we hear the knell of others, be they medical, philosophical, or general. In these bustling times we cannot, at least we fancy we cannot, wait three, six, or even more months for a judgment; subjects now are old and threadbare long before they find a place in a quarterly magazine. Apparently it is nothing to the point that in publications of this class greater facilities exist for displays of learning, and of careful and elaborate criticism. The nineteenth-century people in every station and walk in life find that they can dispense with these without feeling the worse for it. Messrs. Churchill have recognised this sign of the times, and have meekly but prudently bowed their heads to the storm. They observe that for several years they have witnessed the gradual decline in the sale of the *Review*, which was once valuable property; and in spite of their efforts to enforce new life and fresh vigour into it, they have had to stand by and see it languish. The period has come when to continue its publication would incur every year a considerable pecuniary loss. This they cannot be expected to do even for a principle's sake. Once more we lament the decease of our old friend, although the loss may not be fully realised until next January, when we shall look in vain for the new number of the *British and Foreign*.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE Fellows of the Royal Medical and Chirurgical Society at its first meeting on Tuesday last were occupied with two widely different subjects, the one remarkable for its simplicity and almost elementary character, the other dealing with the difficult and obscure subject of the pathology of the blood. Upon the former of these topics we need not dwell here; it is amply reported elsewhere. But attention may justly be directed to the carefully prepared paper of Dr. Sansom, as it will doubtless form the starting-point for further investigation. In examining the blood of a severe and rapidly fatal case of noma, Dr. Sansom found that fluid to contain a large number of minute crystalloidal-looking bodies, quite different from bacteria and their congeners in appearance, but having in common with these organisms the power of motility in a high degree. Increasing in number with rise in temperature, arrested in their movements by various reagents, and appearing in large quantities in the excretions, it seemed as if they formed an essential part of the affection, if they were not indeed the *fons et origo mali*. But Dr. Sansom, with true scientific caution, forbore to jump at conclusions; and, seeing that in another example of the same disease he had failed to find any similar blood-changes, and that Mr. Godlee in examining the blood of a like case had also failed in detecting any such bodies in the blood, it will be evident that he was fully justified in his caution. On the other hand, the manner in which inoculation of the blood into animals produced similar changes in the blood of the recipient, pointed at any rate to the highly infective nature of that fluid, and the rapidity with which its presence could set up like changes in previously healthy organisms. There was a doubt, however, even as to the nature of the bodies described, and Dr. Harley, although certainly extending his theory beyond warrantable limits, must be credited with a suggestion of some value—viz., that the bodies in question proceeded from the detritus of blood-clot. This suggestion, however, would not account for the evidences of vitality possessed by the bodies in question, and in his closing remarks, Dr. Sansom intimated that in order to overcome this difficulty he had to imagine the existence of a thin basis of protoplasm—so structureless and so delicate as to elude the powers of the microscope. He does not, however, appear to have attempted a verification of this hypothesis by the use of staining reagents ordinarily employed to discover protoplasm; and the remarkably rapid movements of the bodies, when isolated, almost negative the idea of a protoplasmic matrix. The conclusion to which everyone must come is that we know very little indeed yet concerning the microscopic pathology of the blood, but as a contribution to that complex subject Dr. Sansom's laborious investigation will doubtless receive careful attention.

INFANT MORTALITY IN LEEDS.

DR. GOLDIE'S Report on the Sanitary Condition of Leeds during 1876, which has only just been issued, contains the startling announcement that the deaths of infants under one year of age within the borough were equal to 43·8 per cent. of the deaths at all ages, and, further, that they were equal to 255·5 per 1000 children born! Well may Dr. Goldie remark—"This is a fearfully high death-rate under one year old, and stands very much in excess of other towns, and of last year's mortality, when the infantile deaths under one year registered only 209 per 1000." We will not stop to criticise the construction of this sentence, but hasten to assure the Town Council of Leeds—which may already have appointed a committee to inquire into this terrible waste of infant life—that their medical officer of health has, inadvertently of course, overstated the rate of infant mortality in the town to a remarkable extent. The Registrar-General in his annual summary, published in March last, reported the rate of infant mortality during 1876 in each of twenty of the largest English towns; the rate, which averaged 166 per 1000 births in the twenty towns, was equal to 180 in Leeds. According to the figures in the tables of Dr. Goldie's own report, the deaths of infants under one year of age were 2201, and the births 12,134, or equal to a rate of 181 per 1000; a very different result from that arrived at in some inscrutable manner by Dr. Goldie, and far less sensational than the rate of 255·5 per 1000, which he has conjured up; it may be noted, too, that he quotes the rate of infant mortality in Leeds as 209 per 1000 in 1875, whereas the Registrar-General published it at but 197 per 1000. The waste of infant life in Leeds is, without mistatement, sufficiently high to call for more local attention than it receives, and it is somewhat satisfactory to find that, according to the Registrar-General's figures, the proportion of deaths under one year to births which, in the six years 1870–75, averaged 204 per 1000 within the borough, declined to 180 in 1876. Dr. Goldie might usefully have shown how the rate of infant mortality varies in different parts of the borough, and among different classes of the population. It is probably unreasonable to expect that all medical officers of health should be able to compile trustworthy mortality statistics; but that an official health report for so important a town as Leeds should be published full of inaccuracies, which the most hasty revision of the figures must have detected, is really mischievous. If space permitted, it might be amusing, if it served no more useful purpose, to point out a few of the unaccountable blunders we noticed in glancing through this report, which can scarcely be attributed to its hasty preparation. One alone must now suffice, which makes the deaths referred to childbirth to include 10 of infants under one year of age!

ST. THOMAS'S HOSPITAL.

IT is greatly to be regretted that at a time when so much depends on the wisdom of the choice of a new treasurer to St. Thomas's Hospital, and when the Committee of Governors have decided upon the wise and proper course of taking time to consider and define the duties of the office, candidates should thrust themselves before the public notice, and throw out feelers to see how far they are likely to gain support if they apply for the office. Whatever any "influential body of governors" may have done in the way of inviting gentlemen to be nominated for treasurer, it has certainly not been done with the sanction of those governors who are most closely concerned in and who have special charge of the welfare of the hospital. The Lord Mayor, who first set the evil example of offering himself to the notice of the governors, has had the wisdom to withdraw from his candidature; and we trust that Mr. Alderman Stone, having followed his example in one respect, will do so in the other also. Until the position and duties of the office have been determined by mature consideration, it is clear that anyone who comes forward does so in ignorance of the work which he desires to undertake, and having in view only the social standing to be gained. If the current reports as to the financial state of St. Thomas's be correct, it is of the utmost importance that the governors should be able to choose the man who possesses the greatest financial and administrative ability, independently of his City position and social influence. Hence volunteer candidatures ought certainly to be discouraged.

AMERICAN URBAN MORTALITY STATISTICS.

ACCORDING to recent official returns, it appears that the United States now contain at least ten cities having each a population exceeding a quarter of a million. The population of New York exceeds a million, that of Philadelphia is estimated at 850,856, of Brooklyn at 527,830, and of St. Louis at 501,489. During the quarter ending June last the annual death-rate in New York is reported to have been 22·5, in Philadelphia and Brooklyn 19·7, and in St. Louis only 10·4 per 1000. These rates are considerably lower than those which prevail in towns with populations exceeding half a million inhabitants on this side of the Atlantic. Indeed, the rates, especially that in St. Louis, are low enough to suggest grave doubts as to the accuracy of the figures. There are two sources of error which naturally suggest themselves in explanation of so low an annual rate of mortality as 10·4 per 1000 in St. Louis, a city with an estimated population of more than half a million. Is the population over-estimated, or do a considerable number of deaths escape registration? The population of St. Louis, according to the census of 1870, was 312,963; while in the middle of 1877 the estimate, published in the New York Quarterly Return, said to be based upon an enumeration in 1876, is 501,489. In the St. Louis Weekly Return the present population is roughly estimated at half a million, and no mention is made of a census enumeration in 1876. The growth of American cities is proverbially rapid, but the very rapidity of the growth must very materially increase the difficulty of framing a trustworthy estimate of population, hence one source of doubt as to the accuracy of some American urban mortality statistics. With regard to the system of registration of births, deaths, and marriages, occurring within the city of St. Louis, the health commissioner, Mr. Charles W. Francis, appears to have recently procured the approval of the Municipal Assembly to two ordinances, which are intended to secure a nearer approach to the completeness of these registers. It is ordained that every physician practising in the city shall, when a patient dies under his care, fill up two certificates stating, not only the cause of death, but all the particulars required for registration; and that he shall, without delay, deposit one of these two certificates in the office of the health commissioner, and the other, after it has been countersigned by that official, he shall give to the undertaker of the funeral to be handed to the authorities at the graveyard or cemetery. Any refusal or omission to carry out this ordinance renders the physician liable to a fine of five dollars. It is also made unlawful to bury a body without the production of this certificate, countersigned by the health commissioner. It remains to be seen whether this system of registration, which entails serious labour and responsibility upon the physicians, will ever be as effectual as the system now in successful operation in the United Kingdom.

POST-OFFICE OFFICIALS.

THE twenty-third Annual Report of the Postmaster-General, recently issued, shows that at the end of last year a total of 45,024 persons were employed in the department, showing an increase of 380 as compared with the previous year. Of these 13,447 are postmasters, more than 10,000 are clerks, and about 21,000 are letter-carriers, sorters, and messengers. In London alone the staff employed consists of 10,380 persons, over 5500 of whom are attached to the chief offices in St. Martin's-le-Grand.

Although abundant material exists for the compilation of numerous interesting particulars, the medical report is, as usual, excessively meagre. It recites that the rate of mortality "among the officers in London during the year 1876 was lower than it has hitherto ever been, with the exception of that of last year." We suppose that "last year" refers to 1875, but the sentence is obscure. The average of officers who died was 30; the chief causes of death were lung affections; there were 2 fatal cases of enteric and 2 of scarlet fever, and only 19 slight cases of small-pox, this latter circumstance being attributed to the very rigid care exercised as to revaccination before any candidate is admitted into the service. It appears that free medical attendance has been extended during the year to fifty-two additional offices in the United Kingdom, so that the field for observation with so large a staff of officials must be enormous. It is therefore a matter for regret that no further particulars than those recorded above are obtainable from a year's medical work among more than 10,000 persons, representing the staff in the metropolitan area, half of whom are attached to two large buildings immediately opposite each other, of both sexes, some with indoor and some out-door occupations, working under many varieties of conditions, as to ventilation, light, temperature, and other circumstances that influence health or originate disease.

ARTERIAL LESIONS IN SYPHILIS.

THE well-known work of Heubner, and the more recent labours of many of our own pathologists, have demonstrated beyond a doubt that there is a specific inflammation of the arteries of the brain in tertiary syphilis. M. Lancereaux, taking up the same subject lately at the Havre meeting of the French Association for the Advancement of Science, stated that such lesions were much more frequent than is commonly believed. The vertebral, basilar, and middle cerebral arteries appear to be the most usual seats for these changes, which are characterised by circumscribed patches of arteritis, commencing within the inner coat. M. Lancereaux had seen several cases of small aneurisms formed by the breaking down of these patches, which rarely exceed more than one to two centimetres in length. The differential diagnosis from ordinary atheroma is based upon the knowledge that the subject is syphilitic; upon the fact that

atheroma is developed especially in the large vessels—aortic, splenic, mesenteric, and renal arteries,—whilst in syphilitic arteritis the changes are only found in the arteries of the brain; upon the frequency with which young subjects are attacked; and upon a certain symmetry in the development of the lesions. We may perhaps be permitted to add that each and every of these diagnostic marks may be found in ordinary atheroma, and it is apparently rather in the nature and mode of development and regression of the endarteritis itself that we should seek for a guidance in the matter of pathological diagnosis. Clinically also M. Lancereaux thinks the specific lesion may be distinguished from atheroma and embolism, basing his grounds chiefly on the occurrence of symptoms of thrombosis in young subjects without evidence of disease in other arteries of the body. Once recognised, he advocates prompt and energetic treatment by large doses of the iodide internally and mercurial inunctions.

POOR-LAW QUESTIONS.

THE questions we have proposed for the consideration of Poor-law medical officers are, in effect, these: 1. How far does the refusal of out-door relief to the sick tend to reduce the burden of pauperism? Is the policy pursued wise? 2. What are the drawbacks of the present system? 3. What are the reforms which medical officers, as men and citizens, would recommend? We have asked for and are receiving replies to these queries. One object is to ascertain the opinions of practical men, more directly than they have as yet been expressed. The names of those who favour us with their views will not be published, but the materials supplied will form a sound basis for mature judgment as to the aspects which these pressing questions present to a service actively engaged in the care of the sick poor. It is not improbable that attention will be directed to the Poor-law question as a whole when Parliament reassembles; and before that time arrives, it is, we think, especially desirable that the large section of our profession labouring in this department of public work should be moved to examine the situation at leisure, and under a sense of the responsibility which exists. Such an opportunity we are now seeking to afford. We would again remind medical officers that their replies should be in our hands not later than the 20th inst.

THE INDIAN FAMINE.

OFFICIAL returns from the famine-stricken districts, dated the 5th Oct., show a still further improvement in the state of things there. In the Madras Presidency, the rains were continuous, the crops thriving, and the decrease in the number of persons receiving relief marked. The number employed on the relief works was 628,259, a decrease of 70,000 on the previous return; receiving gratuitous relief, 1,603,721, a decrease of 2000. The corresponding return in the other famine districts were as follows: Bombay Presidency works, 219,910, decrease 23,000; gratuitous 163,008, increase 3000. Mysore works, 54,000, an increase of 144; gratuitous, 208,683, a decrease of 12,493. In both Bombay and Mysore there had been a good rainfall.

Mr. James Wyld has published a map showing the famine districts in India in the great famines of 1860-61, 1865-66, 1873-74, and 1877. This map will prove useful to those persons who wish to obtain a general idea of the position of the localities affected in the several famines in the peninsula. The map shows the existing railways, and indicates several meteorological phenomena of interest with respect to famine, but it is defective in topographical data, such as showing the limits of provinces and the principal districts.

SURGEON-MAJOR MARSTON.

THE Naval and Military intelligence of *The Times* of Tuesday last contained a paragraph announcing that Surgeon-Major Jeffery Marston "has been appointed secretary to the Surgeon-General of India, and sailed for Bengal in her Majesty's troop-ship *Crocodile* on the 6th inst." Those who knew Dr. Marston in his official position at Whitehall-yard, and were interested in or connected with the work of the Army Sanitary Department, will regret his departure from head-quarters. His administrative ability was always eminently conspicuous in times of pressure and difficulty, and, during the Ashantee war, as well as on many other occasions, the valuable work done by him for his department cannot be too highly eulogised. We may note, as an example, the fitting out of the hospital-ship *Victor Emanuel* for service on the West Coast, for the internal arrangements of which Dr. Marston was practically responsible. In fact, he is a man who knows his duty, and does it with all his might. England has lost and India has gained by the change, and we think that the Surgeon-General of our enormous Asian dependency is eminently fortunate in the possession of so able and energetic a secretary.

CRUELTY TO THE INSANE.

IT is with regret we have again to protest that a fine, with the alternative of imprisonment in case of non-payment, is not a sufficient penalty for the offence of maltreating a lunatic. The crime of ill-using a person of weak or disordered intellect must in all cases be a grave offence, and should be visited with a punishment of deterrent character. It is difficult to understand how previous good conduct can be successfully pleaded in extenuation of an act so brutal as the exercise of needless violence towards a poor demented creature who, chafing under the restraint of asylum life, endeavours to escape. The law ceases to be a terror to evil doers when administered in a fashion against which common prudence rebels. We are impelled to make these remarks in connexion with a case that has just occurred at Devizes, and in which, according to the newspaper reports, the magistrates, while holding an attendant guilty of "a most unjust and unprovoked assault" on a lunatic who had escaped from the Wilts County Asylum, appeased their conscience of duty by imposing a fine of "£2 and costs, or a month's imprisonment in default of payment." Justice so administered is injustice. We have no hesitation in asserting that the option of inflicting a fine should be withdrawn in cases of this class.

SCHOOL SHIPS.

THE *Metropolitan* reports that at the last meeting of the Metropolitan Asylums Board it was decided, on the recommendation of the chairman of the Exmouth School Ship Committee, to admit 600 instead of 500 boys, in consequence of the continued applications from various parishes. We very much question the wisdom of the proceeding. The number of inmates was originally fixed by the Local Government Board at 500, from calculations made as to the available cubic area, and the introduction of another 100 boys must, of course, materially impair the quality of the air between-decks. It is a pity that the managers of a floating establishment so admirably designed and administered should run the risk of impairing its present excellent sanitary condition by any approach to overcrowding. It would appear that the supply of wooden vessels for school ships is by no means inexhaustible. The London School Board some months ago applied to the Admiralty, through the Home Office, for the loan of a ship to be moored in the

Thames. But my lords have definitely declined to accede to the request, on the ground that no more ships are available for this special purpose.

THE CHAIR OF ANATOMY IN THE UNIVERSITY OF GLASGOW.

THE appointment of Dr. Cleland to the Chair of Anatomy in Glasgow, vacated by the resignation of Professor Allen Thomson, will give general satisfaction. The chair is a valuable one in respect of emolument and of influence in Glasgow and its university. Dr. Cleland is a graduate of Edinburgh, and has been long known by the high character of his contributions to scientific anatomy, and perhaps still more widely as joint editor of "Quain's Anatomy." His removal to Glasgow creates a vacancy in the chair of Anatomy and Physiology in Galway. It is only fair to give credit to the Crown for another good appointment

THE WEST KENT MEDICO-CHIRURGICAL SOCIETY.

THE Twenty-first Annual Report of this Society has just been issued. The Society now consists of 48 ordinary and 31 honorary members, and is probably about the most flourishing as well as the senior society of its kind near London. Dr. Carr, of Lee, and Mr. Hope, of Newcross, both old and active members of the Society, were removed by death during the past year. The first meeting of the twenty-second session was held on Friday, Oct. 5th, at the Royal Kent Dispensary, Greenwich-road; Dr. Creed (President) in the chair. The officers having been elected for the ensuing session (1877-78), Mr. W. Johnson Smith, F.R.C.S., then took the chair vacated by Dr. Creed, and delivered a very interesting inaugural address, dwelling chiefly on the etiology and origin of pyæmia and typhoid fever.

CARBOLIC ACID POISONING.

A CASE of carbolic acid poisoning occurred a few days ago at Brownlow-hill Workhouse, Liverpool. Cough mixture was required in one of the wards, and the dispenser was about to fill the bottle, when his attention was distracted, the bottle was eventually filled from another close by that contained carbolic acid, and a death was the result. It is incredible to us that, with so many accidents on record, the administrators of large institutions do not insist upon the use of special poison-bottles, fluted, and coloured in with some glaring peculiarity that suffices to attract exceptional attention. There can be no possible excuse for the universal application of this rule, as an abundant choice of poison-bottles now exists.

A NEW SPECIAL HOSPITAL.

THE first stone of a hospital for the reception of non-pauper cases of infectious and contagious disease was laid on Thursday, the 4th inst., at Poplar, by the chairman of the Poplar District Board of Works. The Lewisham sanitary authority have already instituted a cottage hospital for non-pauper cases, but, with that exception, this is, we believe, the first hospital of the kind inaugurated in exact accordance with the provisions of the Public Health Act, as far as it affects the metropolitan area. Mr. Coleman, who laid the stone, told his hearers that the ground secured measured 196 ft. by 170 ft., and, with the building, will cost £14,000. There will be two blocks or pavilions, each two stories in height, and each block will accommodate 36 patients. The site is beyond the Poplar district, at Plaistow and near the Barking-road. The population of Poplar now amounts to 137,000 persons, occupying 18,280 houses.

THE SUSSEX COUNTY HOSPITAL.

CAN it be true that there is now existing within a few feet of the kitchen of this institution (which for years has well deserved the fame of one of the best hospitals in England) a cesspit which is a receptacle for the amputated limbs and other scraps of humanity, the daily contributions of the dissecting-room, including anatomised dogs and cats, and that this has been going on for years?

We hear that this mass of corruption has nearly reached the brink, and now the medical officers contemplate perpetuating the nuisance, by digging and filling up a similar charnel-house, adjoining the other. What can the sanitary officers be doing in Brighton?

THE ROYAL NATIONAL LIFE-BOAT INSTITUTION.

LIFE-SAVING, in all its forms, has a special interest for our profession. The Life-Boat Institution has peculiarly strong claims on public notice, and it would be remiss not to urge them. During the nine months just concluded 655 lives have been rescued from destruction by the instrumentality of this Society and its various agencies. It would be well if the funds at the disposal of so useful an organisation were sufficiently large to enable it to extend the scope of its operations.

DR. GEORGE PADDOCK BATE has recently presented an annual report to the local authorities on the sanitary condition of the parish of Bethnal-green. The particulars show a great amount of responsible work accomplished, notably in connexion with noxious and offensive trades, many of which are or were carried on in this district. A large tallow-melting business has been a subject of much litigation, but it appears that the suggestions of Dr. Bate, assisted by Dr. Meymott Tidy, were adopted, resulting in a satisfactory abatement of the nuisance. Brawn and collar-head manufacturing, fish frying, and catgut making, have been dealt with as nuisances in Bethnal-green, and, as it seems, successfully. Dr. Bate's report shows how much the practical work of a medical officer of health, judiciously carried out, can conduce to the comfort of the inhabitants of a populous metropolitan parish.

AN official report, compiled by Mr. N. R. O'Conor, secretary to the British Legation at Rio de Janeiro, notes that there are now two faculties of medicine in Brazil, one at Rio and the other at Bahia, towards which the State contributes from £30,000 to £35,000 per annum. It appears that the profession is very popular in this country, and that young men of good fortune, who have no serious intention of practising, not unfrequently graduate as doctors of medicine, much as the same class in England are called to the bar. The course at both faculties extends over six years. A total of 750 students matriculated in 1874, and 85 degrees of doctor of medicine were conferred in the same year. Foreigners who wish to practise are required to pass an examination, for which a diploma from any recognised European medical college qualifies.

THE Metropolitan Asylums Board are taking steps to close the Small-pox Hospital at Fulham, having already closed that at Deptford. As regards the former establishment, Dr. Orme Dudfield, medical officer of health for Kensington, seems, in his last monthly report, to have cleared it from the imputation of assisting to spread the disease in the immediate neighbourhood. The hospital at Fulham is at present far more completely isolated as regards dwelling-houses than the establishments at Stockwell or Homerton, and is likely to remain so for some considerable time.

THE *Metropolitan*, in its useful summaries of proceedings at vestry meetings, reported last week that piggeries still abound in the eminently respectable district of Chelsea, that Kensington is entirely free from any cases of zymotic disease, that scarlet fever and typhoid are increasing in St. George's-in-the-East, that it is proposed to run new streets through some "fever-dens" in the district of St. George the Martyr (Southwark), and that the Holborn Union Schools contain 106 children under medical treatment, 104 of whom were suffering from ophthalmia. We commend this last item of information to the serious attention of the Local Government Board.

MR. GEORGE USILL, Assoc. C.E., read an interesting paper at the first sessional meeting of the Society of Engineers. The subjects dealt with chiefly were ventilation of dwellings, water-supply, and the disposal and utilisation of sewage. It was pointed out in detail that the ventilation of rural houses and village cottages were almost wholly neglected. The collection of rain-water for drinking purposes was highly recommended, in the absence of a good well-supply, it being the most economical and safest mode of dealing with the matter, if proper storage were provided.

Mr. J. MILLIKIN, 3, Thomas-street, Borough, has announced the formation of a Circulating Surgical Instrument Association. By an annual subscription of one guinea any medical practitioner may borrow, in good working order, any surgical instrument which may be required, either for operation or for the treatment of a case. This Association cannot fail to attract subscribers; indeed, its necessity being so manifest, the wonder is that no enterprising manufacturer has not hit upon the idea before.

MR. BENJAMIN SULMAN, of the City-road, a manufacturer of Christmas cards, leads the way in a small but useful act of generosity. He proposes to give sample books of past years to the hospitals for the amusement of sick children. The example might with advantage be followed by book and print sellers, who can contribute the materials for scrap-books, entertaining to the young and old in the weary hours of sickness and convalescence.

WE regret to hear of the death, on the 4th instant, of Dr. H. Lawson, Assistant-Physician and Lecturer on Physiology to St. Mary's Hospital, son of the late John Lawson, Esq., of Dangan House, county of Kilkenny. The deceased was thirty-six years of age.

THE first stone of a new Union Infirmary was laid on the 5th inst. at Highgate, near the Archway-road. The building is designed for the accommodation of 625 patients, and will cost £64,000.

MEDICAL ASPECTS OF THE WAR.

THE thickening snow on the more elevated ridges of the Balkans and the broken weather give earnest of a rapid approach of winter, and the Russian military authorities, it is reported, are making active preparations for putting their forces in Bulgaria into winter quarters. Great exertions are being made for getting together the material for hutting the troops and for providing them with warm clothing, while the utmost energy is being displayed in pushing forwards the railway which is being constructed on the left bank of the Danube, between Sistova and the existing Roumanian lines. The Russian Red Cross Society, following suit, is also now giving its energies to the despatch of warm clothing to the army in anticipation of the severe cold of the winter. Already it has despatched from St. Petersburgh to the Danube 2800 sheep-skin pelisses, 4800 woollen coverlets, 4500 flannel waistcoats, 4520 pairs of woollen stockings, 400 fur caps, and 800 pairs of felt boots and fur slippers. The total number of articles of warm clothing already sent by the Society to the army in Bulgaria is 40,000. *The Times*, from official sources, gives the total number of killed and wounded among the Russian armies from the beginning of the war to a very recent period as 47,400. The total sick within the same period is estimated at 20,000, making a grand total of 67,400. The returns from which these figures are taken would appear to include the armies in the field both in Europe and Asia, but this is not quite clear. A return of the Russian Red Cross Society, dated 27th Sept., shows that of 10,007 beds belonging to the Society included in it, 7240 were then occupied. The strain upon the Russian resources for the transport of the sick and wounded has become very great, but the ability to draft large numbers of cases into the interior of the Empire is evidently working most advantageously for the army. Not less than 2500 sick and wounded were recently conveyed from the seat of war to Odessa, five or six hundred miles distant, within a period of ten days. Most of these cases were suffering from one or other form of fever—the greater number from malarial fever. Not all were placed in hospital at Odessa. Several hundreds were transported from Odessa by sea to the still more distant hospitals prepared at Kherson and Nicolaieff. Odessa now possesses, or will presently possess, seven hospitals, containing an aggregate of 2150 beds, prepared for the reception of the sick and wounded from Bulgaria. Of these beds 1000 have been established by the Russian Red Cross Society. At the close of last month three of these hospitals, containing 750 beds, were completed and in use, and the others were rapidly approaching completion.

Mr. Loyd, the agent of the National Aid Society, reached the seat of war in Bulgaria at a time when the large quantity of well-selected medical and surgical stores that he took with him were of peculiar value. Both the Roumanian and Russian surgical stores were, at the moment, becoming exhausted from the extraordinary demands upon them by the large numbers of wounded, and the contribution by the National Aid Society was received with a graceful gratitude by both the Roumanian and Russian authorities, which must have been in the highest degree gratifying to their agent and to the Society. The Czar personally thanked Mr. Loyd, and through him the Society, for the timely help, and directed that Mr. Loyd should be added to his own mess while in camp. Mr. Loyd is now on his way back to London to develop further the relief for the Russian forces. Among the noteworthy provisions for the relief of these forces we may mention the establishment of an eye hospital at Bucharest.

From the Turkish side there is still only the efforts of the Red Crescent and Red Cross Societies to brighten the gloomy medico-sanitary picture. The condition of the country on the approaches to the Shipka Pass and to Plevna, and the localities in which fighting has taken place, are horrible beyond all description. A great district is absolutely laid waste, and is littered with the dead in every stage of decomposition. The difficulties encountered by the several aid societies in carrying out their mission of mercy are incredible—difficulties arising from the devastation of the localities in which their work lies, from the general lack of almost everything except what societies' staffs carry along with them, and especially from the indifference of the local Turkish authorities and commanders. The work, however, now being done, although small in comparison with what is needed, is of the highest value, and reflects extraordinary credit on the courage, persistence, and tact of the staffs engaged. The Stafford House Committee has a soup-kitchen organised at Constantinople under Col. Coopes, for supplying the sick and wounded with refreshment on their arrival in that city. It has, moreover, the following gentlemen and others at work in Bulgaria: Dr. Stoker, Dr. Weller, and Dr. Baufather, are engaged in transporting the wounded at Suleiman Pasha's headquarters in the Balkans; Drs. Busby, Lake, Wattie, and Boyd, on the same kind of work with Nedjib Pasha's divi-

sion beyond Rasgrad; Mr. Pratt, and Drs. McQueen and Beresford, on similar work at Prince Hassan's head-quarters in the Shumla district. Dr. Hayes is supervising the transport of the sick and wounded on the Rustchuk-Varna line of railway; Drs. Moore, McIvor, Kirke, Wood, and Mr. Scudamore (volunteer), are engaged in hospital work at Adrianople; and Drs. Neylan, Menassin, Stewart, and Mannory, in similar work at Philippopolis. *The Times* correspondent, writing from Adrianople, under date 13th September, gives a graphic account of the difficulties which the medical staff engaged in transport work have to contend with. He describes the arrival at nightfall of Dr. Stoker at Philippopolis with a train of 1200 wounded, no preparation having been made for them, although their coming had been made known to the pasha in authority. He describes also the horrible sufferings of the men from the movements of the bullock-waggons in which they lay; the refusal of the pasha to give the needful help at the moment; the bandying of the wounded from pillar to post; the culmination of the difficulty in the pasha's head servant becoming impudent to Dr. Stoker, and in Dr. Stoker promptly there and then thrashing the man in a way which left almost the bastinado in the shade, and thus bringing the master to his senses through the servant's castigation. No part of the present struggle in Bulgaria will, in after-time, be regarded with more interest than the struggle of our aid societies to compel the Turks to receive help for their sick and wounded.

The total number of wounded conveyed by rail to Constantinople between the 6th and 17th September inclusive, and who received refreshment in the form of soup, tobacco, coffee, bread, &c., from the Stafford House soup-kitchen there, was 3832.

At a recent meeting of the committee of the Sick and Wounded Russian Relief Fund, a letter was read from the President of the Russian Red Cross Society, General Baumgarten, cordially approving of an English representative of the Fund being sent to the seat of war. The Rev. Mr. Lawson has been selected for this purpose, and has left London for Bucharest, together with Dr. Geo. R. Lawson, the former taking with him a supply of warm clothing, blankets, &c., the latter of medical and surgical stores. The committee appeal especially to the ladies for contributions and aid in obtaining contributions of blankets, dressing-gowns, flannel vests, woollen stockings, lint, bandages, &c., to be sent to No. 9, Great Winchester-street, E.C.

ABSTRACT OF

THREE LECTURES ON TERATOLOGY.

Delivered in the Theatre of the Royal College of Surgeons,

BY B. THOMPSON LOWNE, F.R.C.S.,

LECTURER ON PHYSIOLOGY AT THE MIDDLESEX HOSPITAL MEDICAL SCHOOL, OPHTHALMIC SURGEON AT THE GREAT NORTHERN HOSPITAL, ETC.

LECTURE III.

MR. PRESIDENT,—It may appear to some that the statement which I made in my last lecture, that double embryos are almost always developed from a simple blastoderm, was insufficiently supported by the evidence adduced. There are, however, numerous facts connected with the anatomical relations of the parts of the two embryos which afford the strongest possible evidence on this point, and as these relations are of very great importance, I propose, Sir, with your permission, to devote a portion of the present lecture to their elucidation.

The examination of almost any of the numerous specimens in the museum will show that the two fœtuses in these cases are not only united by the external parts, which are in apposition, but that the corresponding internal organs in each are united together. This union is not by mere adhesion, but similar structures are everywhere united, and the intestinal canal of one is united to that of the other, and the tubes are continuous. In this specimen—a lamb with two heads and necks and a partially double thorax—the œsophagus of either head unites with that of the other near the stomach; the heart, which lies at the boundary between the single and double parts of the animal, is incompletely double—it has three ventricles and four auricles. There are three lungs, a common one behind, which receives a bronchus from either trachea. The pneumogastric nerves in the upper part of the malformation are four in number, but the two adjacent nerves form a loop behind the heart. Similar dispositions are found in nearly all double malformations. It is evident that the mere adhesion of two embryos will not account for so complex a union, and that nothing but an originally continuous hypoblast can account for the perfect continuity of the alimentary canal.

M. Geoffroy St. Hilaire attempted to explain this complex union by the supposition of a mysterious affinity of similar parts for each other, comparing the union of the like parts of the two embryos to the union by symphysis of those organs which are developed in two lateral halves—as the lower jaw, for instance.

It must now be admitted, however, that both Geoffroy's supposed law and the normal phenomenon which he believed to afford an instance of the same kind of affinity are imaginary. The true explanation of the union of like parts, both in the normal and abnormal kinds of development, is to be found in what I may perhaps best designate the continuity of the developmental process. If we watch the development of such a structure as the lower jaw, we find that its two lateral halves are continuous from the earliest stages of the developmental process. A rim of cells is first formed around the upper extremity of what will eventually form the pharynx. In this rim of cells, or what should perhaps be more properly termed indifferent tissue, successive differentiations occur; these progress more rapidly at the upper or proximal end than at the lower or distal; and just as there is continuity of cartilage at the symphysis before there is continuity of bone, so there is half-formed cartilage before there is cartilage. Morphologically there is continuity from the first, although histologically there is a break in the tissue. So in malformations we only find the union of like tissue to like tissue where there was original continuity of indifferent tissue having similar morphological tendencies. Whenever two formed parts come into contact, we find irregular union and deformity as the result, and never the union of like parts to form a symmetrical and regular structure. This is well seen in partially double malformation at the angle of bifurcation of the vertebral columns, where the bones and muscles are frequently deformed by mutual pressure subsequently to their differentiation.

In the very curious malformation called sireniform, which, so far as I know, has never been observed except in the human subject, and may perhaps at first sight appear to support Geoffroy's affinity of "soi pour soi," but in these cases the posterior extremity of the vertebral column fails in its development, so that the posterior limbs fall back and undergo semi-rotation, becoming fused together at the very earliest stage of development, so that the papillæ from which the limbs are developed are either fused together before any differentiation occurs, or are from the first represented by a single compound papilla.

A very strong argument against those who hold that fusion of two embryos may produce such double malformation is the fact that no cases are known of the union of two embryos by the edges of the neural canal, or in any manner except such as can be readily explained by the theory of original continuity of the blastoderm.

It is a very different matter when a second exceedingly imperfect embryo is found attached to the skin of a fairly well-formed fœtus, forming a kind of dermal cyst in an irregular position, for here we never see anything approaching a union of like parts; I think in all probability such cases may be the result of the union of the products of two distinct ova. So, again, a second imperfect embryo may be found wedged into the cleft of the palate—another example of the same kind of malformation where there is no evidence of continuity of development.

A remarkable form of malformation is that designated "fœtus in fœtu," where a second embryo is found encysted and enclosed in the peritoneal cavity of the first. Here, although we find no continuity of development, it is scarcely possible to conceive the manner in which the second embryo can have found admission into the cleft in the meso-blast

of the first, except on the supposition that the two were originally formed on the same blastoderm. There are two cases of fœtus in fœtu in the museum of the College. The subjects of both malformations were boys, and both died from rupture of the cyst and hæmorrhage into the abdominal cavity. In both the parasites were without hearts, and this is an invariable phenomenon in such cases. They present all the characters of acardiac fœtuses, the most conspicuous of which are the entire absence of the head and the great imperfection of all the organs of the body. One of the most remarkable facts connected with the history of these enclosed parasites is the long period during which life may continue without concurrent development. The larger of these enclosed fœtuses was taken from the abdomen of a boy sixteen or seventeen years of age.

In cases of double embryos, as in those observed in their earliest stages by Lereboullet, there is a strong tendency for one of the embryos to be arrested in its development, and this is the case whether they are united or not. I should, perhaps, have premised that there is no possibility of drawing a line between cases of double malformation and twins with a common umbilical cord or placenta, but otherwise perfectly distinct. There is, however, this difference: when the fœtuses are united, the imperfect or parasitic embryo is nourished directly by the bloodvessels of the more perfect fœtus or *autosite*; it then exhibits very perfect differentiation of those parts which remain, and which are developed in continuity with the similar structures of the autosite. A good example of this kind of malformation in the human subject is represented by this model of the Chinaman "Ake." The malformation, although very rare in the human subject, is common enough in kittens, and the series in the museum shows that a single limb may be all that remains of the parasite, and that this may be so united with one of the limbs of the autosite that a double limb may eventually be the only indication of an originally double embryo. A study of the manner in which this occurs will show at once, however, the impossibility of more than one limb attaining supernumerary parts in this way.

When the second fœtus remains distinct from the first and the heart fails to be developed, the nourishment of the parasite appears to be effected without bloodvessels. The parasite is then arrested in its development at a very early period, although growth continues until birth. In this example of an amorphous human fœtus, a parasite developed as a twin with a normal fœtus, although the mass is probably about half the weight of a full time fœtus; the cranial cavity is a mere bony cyst connected with a very imperfect vertebral column, and the greater part of the mass consists of connective tissue containing numerous cysts. There are no traces of limbs, but there is a large abdominal cavity, containing small fragments of blind intestine, and a single median kidney of very small size, together with a pair of very large Wolffian bodies connected with the urinary bladder by their ducts. This is one of the most remarkable examples of the growth and persistence of a temporary structure with which I am acquainted, although some forms of hermaphrodism are characterised by very remarkable examples of the same kind. A very important fact in the anatomy of double malformations is the inversion of the viscera in one of the embryos, although this is not constantly the case; the only exception, however, with which I am acquainted is in twins united either by the anterior or posterior extremity of the axis, and even then it is usual to find the viscera of one of the fœtuses reversed. The usual explanation of this fact is that which was enunciated by Von Baer, who supposed the disposition of the viscera to be determined by the position which the embryo assumes on the yelk. I may remind you, Sir, that the embryo at first lies with the abdominal surface upon the yelk, and that at a very early period it turns so that it lies upon its left side. In the case of double embryos one turns, as a rule, upon its right and one upon its left side. In the exceptional cases it is probable that the embryos are so twisted that both lie on the left side. M. Camille Dareste, however, states that he has found in some rare instances a chick placed on the right side in the egg without any abnormality in the disposition of the viscera. Unless there is some error in this observation, we must admit that the cause of this remarkable disposition of the viscera, in the case of double malformations, is inexplicable.

Another fact well worthy of attention is the great preponderance of the female sex in double malformations. I cannot but believe that this is due to the female inheriting a stronger tendency to multiply by division than the male. There are, however, certain double malformations which are almost without exception male; as fœtus in fœtu, and those cases in which a parasite is engrafted in the sternal cleft.

Before quitting the subject of double malformations, I will ask your patience for a few minutes, that I may advert to some remarkable instances in which only a single organ is doubled. The formation of two mouths instead of one, and in some rare instances of three; the existence of four external ears and of two or more spleens,—are well known examples of this kind. In all these instances, I strongly suspect, we see the same phenomenon working the dichotomy, of normally single, bud-like masses of cells. Of late the view has been held that in the case of supernumerary mouths and ears, we see the effect of the persistence and morphological modification of the visceral clefts; on the hypothesis that the external ear represents the gill operculum of a fish, the formation of supernumerary ears is considered as an example of the repetition on the second arch of a structure normally belonging to the first only. In reply to those who hold such views, I can only say I know of no examples of similar repetition in the higher animals, although they are common enough in plants.

According to M. C. Dareste, the occurrence of two hearts is not so rare in birds as has been hitherto believed, and he regards this as the result of an arrest in the developmental process. According to the most recent observations, the heart in mammals, and, according to M. Dareste, in birds too, consists of a double tube in its earliest stage of development. These tubes unite at a very early period into a single tube, from which the heart is formed; the arrest of this union is, according to M. Dareste, the cause of duplicity of the heart. There is no specimen of a double heart, except from a double embryo, in the museum of the College.

The relation of Darwin's theory of pangenesis to teratology is too tempting a subject to be passed wholly without notice, but at the very onset I must confess that it must be regarded so entirely as a theory, and nothing more, that I feel some apology is necessary for its introduction. As, however, Darwin himself so often refers to teratology in support of his views, I feel that any course of lectures on this subject would be incomplete if it omitted all reference to the theory. Darwin's theory of pangenesis, as I understand it, is an amplification of the view expressed by Bernard, Virchow, and implicitly, if not explicitly, by Sir James Paget in this very theatre, that every cell and every tissue of the body lives a more or less independent existence; as Virchow expressed it, every single epithelial and muscular fibre-cell leads a sort of parasitic existence in relation to the rest of the body. Darwin further supposes that each cell leaves behind it a number of germs, which he calls "gemmules," and that these have the property of reproducing cells similar to the parent cell whenever they are stimulated in action by coming into the same conditions and relations as those under which the parent cell was developed.

It would be out of place in these lectures to enter into the various facts for and against this theory, except as far as they bear a relation to malformations. I have sought carefully, but in vain, for any facts in the history of the various forms of malformations for some substantiation of this theory; all the facts cited by Darwin appear to me to be explicable on other grounds. The existence of redundant parts is supposed by that great naturalist to be due to the existence of a superabundance of gemmules, and the deficiency of parts to their deficiency. On this view, however, we should expect such malformations to be much more frequent than they really are. Again, the consecutive nature of the developmental process, the manner in which the development of one structure follows and depends upon another, hardly favours the view that development depends on the evolution of gemmules. Nor does the fact that growth may proceed without development appear to fit in with this theory, and Buffon's law of affinity of one part for a similar part, on which Darwin relies as a support for this view, is, as I have endeavoured to show, in all probability quite fallacious.

PROVINCIAL INTRODUCTORY ADDRESSES.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.

INTRODUCTORY ADDRESS BY DR. BYROM BRAMWELL.

MY first duty, and it is a very pleasant one, is to bid you students, one and all, a hearty greeting. Those of you who return to us come back, I trust, refreshed and invigorated by the relaxation and pleasures of the long vacation, fully prepared for another session of steady, honest, hard work. Those of you who now for the first time sit upon our benches I would particularly welcome. You to-day join as recruits the ranks of the medical profession, and in holding out to you the right hand of fellowship, I sincerely congratulate you on your choice.

The majority of you will doubtless, when your student life is ended, enter into private practice, and in that capacity you have before you a most useful and honourable career. Your work will be laborious, and often attended with great anxiety, but provided that you take a scientific interest in your profession, keeping yourselves abreast with the medical literature of the day, and avoiding a routine method of regarding and treating cases, your occupation will be one of ever varied and absorbing interest; indeed, to my mind, there is no profession excepting that of pure science itself which can at all compare in this respect with that of medicine. You are joining us, too, at a happy period of our history. Never has the practice of medicine been more scientific, less empirical, than it is to-day. The almost perfect condition of "human descriptive anatomy," the advanced position of chemistry, the enormous progress which physiology has made during the past few years—a progress which will undoubtedly continue, and to which British physiologists will contribute, so long as the Government and people of the country mete out simple justice, and do not give way to the fancies and prejudices of those well-meaning but misguided people who are trying to suppress vivisection, the very essence of physiological research, —the increased attention which is being given to "preventive" medicine, the rapid strides which are being made in pathology and in the elucidation of all forms of disease, the brilliant prospect that is in store for therapeutics now that the mode of action of drugs is being investigated in the same rigid manner as any other strictly scientific problem,—all of these facts warrant me in predicting a bright future. It will be your privilege, gentlemen, to share in that future, and it will be your bounden duty to do what in you lies to advance the science and art of the profession. Each one of you, wherever his lot be cast, whether in town or country, will have it in his power to aid materially in this advancement. "Science," says THE LANCET, "in its broadest and most practical sense, claims the service of facts. It is not too much to say that the business of accumulating facts is at once the most important and most extensive branch of medical enterprise, and it must of necessity devolve upon the general body of the profession." Each one of you, then, will, I trust, enter into practice with the firm determination to accumulate facts, and with the earnest desire to win fame for yourselves by making original observations. Such a laudable ambition will lighten your labour, will console you in your disappointments, will stimulate your exertions, and, above all, will urge you to try to understand whatever seems difficult and obscure.

It is impossible, gentlemen, to exaggerate the importance of the step you take to-day, and I would wish to impress upon you most solemnly the great responsibilities of your position. It is essential that each one of you should thoroughly realise the fact that your after-success in life depends in great measure upon the use you make of the next four years, and upon the habits you form during your student career. It is a common notion amongst students that *the* aim and object of their medical education is to qualify them to pass their examination. Believe me, this is a dangerous fallacy. If you give way to it, you will of necessity have recourse to cramming—a baneful mode of acquiring information. The sole object of your education here is to make you good practitioners, to teach you how to work and how to think, to give you such knowledge and training as will be of daily use to you hereafter. You must endeavour to acquire such a knowledge of each subject of your curriculum as will stick to you and be available for life. Knowledge of this sort must be thoroughly sound, thoroughly practical, and is only to be gained by steady, persevering, hard work. The acquirement of such knowledge is necessarily slow; for each new fact must not only be ingested, but must be thoroughly digested and assimilated.

If, gentlemen, you work in the manner and with the objects I have indicated, you need have no fear about passing examinations. I have never known any one of average ability who worked faithfully and well during the whole four years of his student life, fail to pass. Unfortunately, the converse does not, in my experience, hold true, for I have known several idle, ill-informed men fluke through.

And here let me pause for a moment to advise you as to the examinations you should pass; in other words, as to the "qualifications" you should take. Many of you are, probably, aware of the important fact that the universities and other licensing bodies of England have, happily, at length agreed upon a "conjoint scheme of examinations." Once this scheme is in operation, it will be compulsory on all persons desiring an English qualification to pass the conjoint examination. Having entered the profession through this, which will then be the only English portal, the student will receive three qualifications—the licence of the Royal College of Physicians, the Membership of the Royal College of Surgeons, and the licence of the Apothecaries' Society. The scheme is still in preparation, and, inasmuch as its action will not be retrospective, you who commence your studies to-day will not be bound by it. If, however, it should come into working order during the next two years, before, in fact, you have passed your anatomical and physiological examination, I would advise you to go in for it, in preference to seeking any individual "qualification." Those of you who wish to take a good place in the profession—and let me urge all of you to aim high from the very start—will doubtless desire some higher qualification. A university degree is the one you will most covet, and, thanks to the liberal and judicious alterations which the University of Durham has lately made in its regulations, each of you has the degrees of Bachelor and Doctor of Medicine within reach. [The lecturer then explained the rules of his University affecting students, pointing out the fact that the University of Durham, so far as regulations go, now affords equal facilities as the Scotch Universities. These regulations will be found in the Students' Number of THE LANCET, Sept. 8th, 1877. He proceeded as follows:—]

I hope I have thoroughly impressed you with the idea that a sound knowledge of your profession is the first essential to true success in it. I say *true* success; for although some men, who know little of and care less for our science, manage, by loud professions, a plausible manner, or some one or other of the many arts by which the public is gulled, to acquire practice, yet their success is a fictitious one, and their mode of practice only a high grade of quackery. Let me now urge you to enter without a moment's delay upon your course of work. Some of you may think that with four years before you you can afford to be idle for a little. The temptation is a strong one, inasmuch as many of you are now for the first time your own masters, free to work or to be idle as you think fit. Let me beg of you to resist it. Even with the greatest method and industry you will find it wellnigh impossible to get through all that is before you. Remember, too, that habits of any sort, especially habits of idleness, are very difficult to shake off. It is essential that you should at once begin to work.

During your first session anatomy and chemistry should chiefly engage your attention. Some students also take physiology; this I think is a great mistake. It is preposterous to ask you, who are ignorant of anatomy and unacquainted probably with any but the most elementary facts in chemistry and physics, to grapple with its difficulties. I would advise you to omit physiology, and to attend instead Professor Herschell's course of physics. It would be difficult, I think, to exaggerate the advantage of a sound practical knowledge of this subject. To the physiologist it is essential; to the medical officer of health it is of the

greatest advantage; to the physician and surgeon it is of no less importance. Let me give you an illustration of the fact that some of the most important and obscure problems in physiology, medicine, and surgery, depend on physics for their elucidation.

There is no more interesting scientific subject than the origin of life. From the very earliest times this question has attracted the attention of thinking men, and to-day it is being more eagerly investigated than ever. Is spontaneous generation possible, or do all living things arise from pre-existing living things? The inquiry is now limited to the origin of the very lowest organisms. In all other cases it has been proved that life can only spring from life. The organisms to which I refer are called bacteria. They are very minute. In order to see them it is only necessary to examine, by means of the miscroscope, an animal or vegetable substance in a state of putrefaction, or, still better, to breed them in the following manner. Make an infusion of some animal or vegetable substance, boil it for some hours, then filter it, and pour it into a perfectly clean glass vessel with a wide mouth. If you now examine it you will see that it is bright and clear, and you will be unable by any means you may employ to detect life in it. Set it aside for a few days in a warm place and then examine it again. It has now lost its bright, clear appearance, and is more or less dull and turbid; there is, too, a delicate scum on its surface. Examine a very minute portion of this scum, by means of a high magnifying power, and you will find that it literally swarms with life; minute rod-shaped and jointed bodies wriggle about under your eye in all directions. How have they been produced? Those who believe in the old doctrine, *omne vivum ex ovo*, or more correctly, in accordance with modern science, *omne vivum e vivo*, say they are descended from pre-existing organisms, the germs of which float about in the air, and have thence got into the infusion. The advocates of spontaneous generation deny the existence of these germs. They say the bacteria have been produced *de novo*—that is, without the agency of any parents, simply as the result of the combination of physical conditions to which the infusion was exposed. Does the air contain germs or no? This is the crucial point to be determined, and it is one of the most difficult investigations in the whole range of physics. In spite of years of labour and research, in spite of repeated and most careful investigations by some of the leading chemists, physiologists, and physicists of the day, amongst which the recent beautiful experiments of Professor Tindall are conspicuous, the question still remains *sub judice*, although to my mind the balance of evidence is in favour of the "germites." Some of you may say, that is all very interesting, and no doubt very important to the physiologist, but we fail to see what bearing it has upon practical medicine and surgery. Surgeons, gentlemen, have long known that open wounds are much more liable to be followed by inflammation and other disastrous consequences than wounds from which atmospheric air is rigidly excluded. Those who believe in the "germ theory" say these evil results are due not to the entrance of air but of the germs which it contains; and Professor Lister, the most scientific of surgeons, and one of our ablest physiologists, has introduced an elaborate method of treatment, the object of which is to prevent any living germ remaining in contact with, or having access to, a wound. Now the advantages or disadvantages of Prof. Lister's antiseptic system is *par excellence* the medical question of the day. To us physicians, too, the presence or absence of germs in the air is a matter of vital moment. Many of us believe that the poison of some of our most infectious diseases consists of minute living particles, and it is only by supposing that they are wafted about by the atmosphere that we can explain some cases of infection, the origin and spread of certain epidemics, and the like.

During your first session you should not devote much time to hospital practice; half-an-hour or an hour daily spent in the surgical wards or in the out-patient department will be sufficient. You cannot expect as yet to gain much knowledge of actual disease, but you will be undergoing a most important training. You will gradually lose that feeling of strangeness which at first is so oppressive; you will by the mere force of example get into the way of interrogating patients; you will, unknown to yourselves, be teaching your fingers to feel, your eyes to see, your ears to hear. Some of you will say, surely you are quizzing us; we can see and hear as well as you can. Doubtless your powers in these respects are as good as mine, but they are at present untrained and undeveloped. Ask a child to describe an egg. It will tell you it is an egg, but will give no account of its colour, form, size, weight, and other physical peculiarities. So, if you were asked to feel a patient's pulse, you would probably be able to perceive it, but you would be quite unable to note its characteristics or to give an intelligent description of it, simply because the whole thing would be new and strange to you.

The object of your hospital training is to educate your feeling, seeing, and hearing; to develop in you that most important faculty, the power of observation; to strengthen your reasoning faculties; to teach you the best, the most logical, and most orderly way of examining and recording cases; to make you familiar with the physical signs of disease; to teach you the mode of using the various instruments of mathematical precision which are used in the investigation of disease;—rather than to tell you what are the symptoms of this or that particular malady. A knowledge of symptoms, a knowledge of individual disease, is only gained by experience, and will be readily picked up if you enter properly prepared upon the responsibilities of practice. Too much knowledge of this sort ought not, in my opinion, to be demanded of the student. The time has, I think, come when the amount of book knowledge should be limited. It is impossible for any student to acquire a *real* knowledge of subjects so vast as the medicine and surgery of the present day, and surely it would be better to demand a sound practical knowledge of a portion rather than an imperfect smattering of the whole.

I have now exhausted the subjects of the first winter session. Time does not permit me to tax your patience further, and to examine in the same manner the many other matters you will have to study. A word or two and I pass on. I have already given you good reason for deferring physiology till your second year. Let me now beg of you to try to master its difficulties. It is, perhaps, the most important subject of the whole curriculum—firstly, because it is the very basis of all rational medicine; and, secondly, because once your student days are over your opportunities of acquiring a knowledge of it will be few and difficult. I cannot better impress upon you the importance of physiology than by quoting the words of one of its most able exponents:—"Exactly in proportion," says Professor Arthur Gamgee, "as physiology defines with precision the acts and processes of the healthy organism will medicine become an exact study; the more the physician employs the habits of mind and the methods of research of the physiologist the greater will be the progress of that profession whose future shall be infinitely more glorious than even its honourable past."

Your curriculum being ended, your examinations safely passed, you should, if possible, obtain a resident appointment in a hospital. In lieu thereof an assistantship in general practice will be of great advantage to you. All of you who can, by any possibility, manage it, should visit other and foreign schools. Even a single session in London or Edinburgh will be of infinite advantage to you. If you have such an opportunity and neglect it, you will assuredly bitterly regret it.

I have endeavoured, gentlemen, to show you the way in which you ought to work, and the manner in which you may acquire professional knowledge. There are other qualifications just as necessary for true success. It is essential that you should gain the confidence and esteem of your patients. You must establish a reputation for kindliness, strict honour, and integrity. You must rigidly observe all those unwritten laws which govern the conduct of the high-toned English gentleman. You must try to gain a knowledge of mankind, and, if you possess it not, that faculty most difficult to acquire, but most precious to possess, which we term tact. These, gentlemen, are days of keen competition, but those of you who enter for the race in the right spirit, and who earnestly strive to tread the difficult but pleasant path I have so imperfectly described to you, are, if health be preserved, certain to succeed. Your pecuniary reward will be small, and if any of you should be entering the profession in the hope of making it a means of money-getting, let him arrest his steps, and turn to some mercantile or business occupation. In such pursuits the same amount of work will bring him in a vastly greater

cash return. But although you cannot hope by means of medicine to gain fortunes, yet you may rely on making a decent competence. Your income, too, so long as health permits of work, will be a steady one, free from the harassing ups and downs which are unfortunately too common in commercial life. And in other respects you will be amply compensated. Your life will be eminently a happy one. Your social position will be a good one. You will become the trusted friend and confidential adviser of many of your patients. You will have the satisfaction of leading useful lives, and of doing an immensity of good to your fellow men. Your names will become honoured in the place in which you dwell. Gentlemen, I speak strongly on these points, for having for some years practised in a town in which I was preceded by my father and grandfather, I can personally testify to the affection, nay, the reverence, with which their names are mentioned by all classes of the community. That each one of you may attain to a like position is my most earnest wish.

[Dr. Bramwell's address was delivered extempore.]

LEEDS SCHOOL OF MEDICINE.

INTRODUCTORY ADDRESS BY MR. JOHN A. NUNNELEY.

AFTER sound and apposite remarks on the general work of the student, the lecturer, addressing himself pointedly to the first year's men, said:—

"The great business of your first winter session will be to master the main outlines of anatomy and physiology, especially the former, and you will also have to devote a certain amount of time to chemistry. You will probably not be required to attend more than three lectures in a day—usually, I believe, not more than two,—of which one will generally be on anatomy; and I am sure that I shall not be contradicted when I say that if there be one subject which demands more time and attention than others, it is anatomy, for, indeed, this, with its dependents, physiology and pathology, must form the foundation of your knowledge of medicine and surgery; upon it your entire medical education will have to be constructed. It is a subject, too, which must be mastered early in your career. Later the 'romantic regions' of the hospital will to many prove more attractive than the dissecting-room, and in the dissecting-room a large part of every day must be spent; and recollect once for all, anatomy can be learnt nowhere else than in the dissecting-room. Books and plates are a help, a great help, but nothing more."

Next referring to physiology and pathology, he said:—"The vast advances made in these sciences and in microscopic and experimental research have undoubtedly been mainly instrumental in causing the remarkable progress which medicine and surgery have made of late years, and done much to establish them upon a sure and scientific foundation. The area, however, embraced by these subjects, and also of chemistry, is so vast, that it is utterly impossible for a student to obtain a knowledge of the whole; nor, so far as chemistry, at any rate, is concerned, for the purpose of medicine simply, is it necessary that he should attempt to do so. It seems, therefore, exceedingly desirable that the examining boards should, within certain limits, define their requirements on these subjects, as recommended by the Medical Council, in order that the time of the medical student, far too short already, may not be occupied more than can be avoided with what is unnecessary or not practically useful."

On the subject of the amount of time which it is desirable for a first-year's student to devote to hospital work, Mr. Nunneley remarked: "No doubt the attractions of the hospital are very great, and some men may be tempted to spend too much time in the wards and out-patient room, to the neglect of their proper work; but, on the other hand, I certainly hold that the opposite course of neglecting hospital work wholly during the first winter session is equally a mistake for most students. Those who intend to spend some years at this or other hospitals, as well as those who are preparing for the higher examinations, especially those of the University of London, may advantageously postpone their hospital work, and give their whole time to elementary subjects; but, with these exceptions, I think every one should attend the surgical practice of the hospital regularly, even during his first session, especially as the apprenticeship to some busy practitioner, where much practical knowledge was obtained, is not by any means so general as it formerly was. It therefore becomes all the more essential that every opportunity for practical work at the bedside, and especially perhaps among the minor ailments in the out-patient room, should be sought. Besides, just as an apprentice to any trade gains by practice facility in the use of the appropriate tools, you must train your eyes, your hands, indeed all your senses; more than this, and it is of even greater importance to your future means, that you should gain the knowledge of how to deal with patients, and so to obtain that essential control over them—that tact without which all your skill may often avail you little."

Speaking of hospital practice, the lecturer dwelt on the necessity of working out cases thoroughly. "One case thoroughly worked out is of far more value than twenty only half done; the one case, so far as it goes at any rate, will guide you aright, the twenty are likely enough to mislead you. While on this subject, let me warn you against an error into which some students are liable to fall—viz., of running after great cases only, and neglecting the minor ones. This is a serious mistake, for, let me remind you, the lesser ailments are those which you will far the most frequently have to deal with in your after-life, and it is a perfect knowledge of these, therefore, which for a young man is of the most consequence. I fancy also some students devote themselves too exclusively to the surgical wards, neglecting somewhat the medical ones. This is an error the more important nowadays on account of the many instruments tending to precision in diagnosis which are now used by the physicians, and a knowledge of which is indispensable." After insisting on the importance of note-taking in the wards as a valuable means of training the powers of observation and impressing the cases on the memory, and the use which a well-recorded set of hospital cases would be found in after life, the lecturer said in conclusion:—"Gentlemen, I have said something to you of the work which you must undergo to fit yourselves for the noble calling which you have chosen. What is the return for this work which you may fairly look forward to? With ordinary ability and industry there is no profession in which you may so certainly expect a moderate independence, but not more; its prizes, with reference to honours or public distinctions, are few; your greater and more lasting return will be the gratitude of your patients, and the satisfaction of your own conscience. In order to obtain these you must realise the responsibility of what you are undertaking; to your hands will be committed vast opportunities of doing either good or evil, for no man is so universally trusted as the doctor. Medical men are, truly, under the heaviest burden of responsibility which it is possible for men to be. The patient resigns himself wholly into his hands; his future comfort, his very life, will depend upon the way in which this unbounded confidence is met. The manner in which you will be able to discharge this great responsibility, and the character of your whole future career, will depend upon the advantage which you take of the great facilities for acquiring a competent knowledge of your profession which will be offered to you here; should you fail to obtain this now the opportunity can never return."

SHEFFIELD SCHOOL OF MEDICINE.

INTRODUCTORY LECTURE BY DR. BANHAM.

DR. BANHAM, after a few preliminary remarks, congratulated the students upon their choice of a profession, assuring them that they would not be likely to regret that choice if they were able to endure the inevitable hardships which it involved. He proceeded to enlarge upon the value of a preliminary training, even in cases where it had not been of a scientific character. "Indeed," said he, "not only are you not the worse for a training specifically different from the scientific work which henceforth is to be your chief business, but you are distinctly the better." He then made some reference to the interdependence of all branches of knowledge, and showed the necessary truth of the seeming paradox that a man must know many things before he can thoroughly know one. He next explained to them that whether fitted for their work by unusual intellectual powers or by a suitable preparatory training, the all-important

work for them was the practical study of disease—a study which must be supplemented, but could not be superseded, by the theoretical study of books. "The knowledge required," he said, "is not simply that bookish knowledge which enables you to describe a disease, but that practical knowledge which enables you to detect it—a knowledge gained at the bedside of your patients, requiring for its development trained eyes, trained ears, and trained fingers."

He proceeded to give a detailed account of the manner in which they should prosecute the practical study of medicine, quoting Lord Bacon's dicta on the necessity for the removal of all the idols of prejudice or authority from their minds, in order that an accurate observation may lay the foundation for a useful induction. Here, in illustration, he traced the changes in medical fashion by which the cupping and drenching custom of one age had revolted the common sense of the next, only to give place to an authorised but excessive stimulation by inordinate doses of alcohol. A feeling allusion was then made to the loss the school had sustained in the removal by death of two of the most accomplished members of its educational staff: Dr. J. C. Hall, one of the lecturers in medicine, and physician to the Public Hospital and Dispensary; and Mr. Samuel Parker, one of the lecturers on Surgery, and a surgeon to the infirmary.

A few remarks were then directed to those students who were about to leave the school and enter upon the responsible duties of medical practice; and special reference was made to the department of preventive medicine, to which so much of their attention would have to be directed. He urged them to perform earnestly and faithfully their duties, remembering that it was not for themselves alone they toiled, but for the world around, needlessly wasted by sickness and death.

Correspondence.

"Audi alteram partem."

HÆMORRHAGE FROM THE HAND.

To the Editor of THE LANCET.

SIR,—The "Mirror" of to-day, October 6th, 1877, contains the account of a very interesting case of bleeding from the hand, admitted into St. Mary's Hospital. My object in noticing the case is to ask the attention of the profession to a method of treatment which I believe has not been advisedly used, but which will, I expect, be found to obviate the necessity for successive operations. It is clear, from the account of Mr. Walton's case, that my suggestion would have been inapplicable to it by reason of the then state of the wound, but as instances are rare in which it is necessary to ligature two sets of vessels to arrest bleeding from the hand, I venture to take this one as my test.

My proposition is this: "Should hæmorrhage recur *after* the brachial has been ligatured, *compression* at the original wound would probably be effectual" (Surgery of the Arteries, by the author, p. 135). Before the operation, the blood is thrown with force by the heart, and readily dislodges a clot and prevents repair. Thus, the flow of blood is direct; but, with the ligature intervening between the heart and the wound, the force of the circulation is considerably spent against that barrier, the blood arrives by a circuitous course, and nature's efforts at the seat of the wound in the artery are sufficient to withstand, *with compression added*, the impact of the blood.

Although, in no instance in which I have tied an artery at a distance from the source of bleeding has hæmorrhage recurred, yet success must be regarded as *accidental*, because, the vascular chain being broken at the bleeding point, the effects of reaction and the moment of the establishment of the collateral circulation cannot be foretold with certainty. It may be questioned whether, in the upper extremity at any rate, ligature of the brachial would be a remedy for a primary bleeding from the hand. Doubtless, the more or less exhausted condition in which the patients are when this operation is resorted to, consequent on repeated loss of blood, tends to a successful issue from one point of view—the hæmorrhagic. The operation is at variance with the sound principles of surgery of the arteries, but in these instances (hæmorrhage from a doubtful source in an important region) an exceptional method is unavoidable.

Whether to ligature one or both arteries in the forearm, holding the brachial in reserve, or to tie this latter in cases of uncontrollable bleeding from the hand, is a vexed question still. I prefer the latter. It is further from the lesion, and lying among comparatively sound structures, where the wound is less likely to be contaminated by unhealthy secretions, and more ready to take on reparative action. The varying arterial distribution to the hand renders the result of deligation of the radial and ulnar vessels more uncertain. Repeated hæmorrhages are both exhausting and alarming to a patient, while repeated operations are painful and harassing, and also discreditable to surgery in the estimation of the public.

Mr. Walton's case was full of difficulties, both physiological and physical rest being disturbed by the tetanus, and he may be warmly congratulated on the recovery of his patients. I remain, Sir, yours, &c.,

C. F. MAUNDER,
October 10th, 1877. Surgeon to the London Hospital.

THE TREATMENT OF CONDEMNED MEAT.

To the Editor of THE LANCET.

SIR,—In thanking you for your very kind notice of my recent report to the Commissioners of Sewers upon the "various methods of dealing with meat seized as unfit for human food in the City of London," I feel it due to myself to reply to that portion of it which criticises my disinfecting bath.

Allow me, then, to say that the formation of sulphate of lime by the reaction of chloride of calcium upon sulphate of iron is a fact which was present to my mind, and for which I had allowed when arranging the strength of the bath.

The proportion of sulphate of iron is 56 lb. to 300 gallons of water, but as about half of the crystal consists of water, the real strength would be, approximately, 30 lb. of the sulphate to 3000 lb. of water.

Assuming that 30 lb. of the sulphate of iron were altogether decomposed by the chloride of calcium, rather less than 30 lb. of sulphate of lime would be produced. The solubility of sulphate of lime in pure distilled water is about one part of the salt to 350 parts of water. In presence of an acid, or when sulphate of lime is formed by double decomposition, its solubility is much higher.

In the bath I employ there is little or no precipitation of sulphate of lime, and I apprehend that a solution of sulphate of lime must be as effective as a solution of the nitrate, chloride, or any other soluble lime salt of equal strength.

The convenience of using so cheap a material as sulphate of iron far outweighs any advantage that the chloride of that metal would have afforded, although, of course, the latter would not have been open to the objection you have raised.

Whatever may be the theoretical defects of my bath, in practice it has proved a perfect success, as you will admit when I tell you that upwards of *five tons* of putrid and diseased meat and offal have been immersed, deodorised, and disinfected, in one bath, which, at the end of three weeks, was almost as effective and inodorous as the day upon which it was made.

With this explanation, I am sure you will be generous enough to acquit me of having made "a curious oversight for a public analyst."

I have the honour to be, Sir, your obedient servant,
Queen-street, Oct. 9th, 1877. WM. SEDGWICK SAUNDERS.

FEVER IN JAMAICA.

To the Editor of THE LANCET.

SIR,—In a leader in *The Times* of Sept. 21st certain comments are made upon a Jamaica correspondent's letter which appeared in that paper two days previously. The letter referred to is principally concerned with an account of a fever epidemic then prevailing at Kingston, and the deaths of several persons of distinction in the island from

yellow fever. The correspondent (evidently not a medical man) makes use of the phrases "the fever of the country" and "the more ordinary forms," while describing the nature and extent of the epidemic, which he stated was prevailing "in its more or less dangerous forms." The writer of *The Times* article seizes upon these phrases, and in the most unjust manner holds them up as evidence "that Jamaica does not possess at present a physician who is capable of reducing this chaos of words to proper order," and at the same time suggests the sending out of some English physician who has the special skill to do so. Such an insult to men like Drs. Bowerbank, Steventon, Allen, Anderson, &c., well known in Jamaica, and even elsewhere, for their scientific attainments and interest in State Medicine, is most unmerited; and I am sure that no man in this country is more competent than they are to elucidate all the facts connected with the various fevers which infest Jamaica, so far as the present state of science will permit. As *The Times* most unfairly suppresses any communication on the subject, I must beg of you to insert this note in THE LANCET. There are many points in *The Times'* observations open to objection, but I forbear entering into the subject generally, my only object being to defend professional brethren held in high esteem from injurious aspersions on their professional character. Yours &c.,

Bath, Oct. 2nd, 1877. THOMAS COLE, M.D. Lond.

THE CASE OF FREDERICK JOHN CHALKLEY.

To the Editor of THE LANCET.

SIR,—If it would not be encroaching too far on your valuable space, I should like to explain certain misleading reports and comments of the press about the unfortunate death of the man Chalkley, who was accused of having committed a burglary in the City-road. I am represented to have said that there was no actual danger in removing him from this hospital. What I really said was that there was not, as far as I could then judge, any immediate danger to life in the act of removing him; that, as to whether there was any danger at all, I told the detective it was impossible to say, and that there were certain risks, more or less remote, which might follow, instancing hæmorrhage and erysipelas. The detective said more than once that unless I could say that there was actual danger to life he must remove him. I then replied that if he removed him, he must do so on his own responsibility. The opinion I held was that, although there was no immediate, there certainly was remote danger.

I am, Sir, obediently yours,

St. Bartholomew's Hospital, Oct. 10th, 1877. H. W. WEISS.

To the Editor of THE LANCET.

SIR,—Frederick J. Chalkley, aged twenty-one, was admitted into the House of Detention on Sept. 10th, in the afternoon. His head was carefully bound up in bandages, and he stated that he had fallen over a hoarding in the Farringdon-road on the previous Saturday night when drunk. He complained of no pain, was perfectly sensible, and, in fact, had no bad symptoms whatever.

On the following day I removed the bandages and dressings, and found two wounds, one upwards of three inches in length, jagged and irregular, extending over the right temporal and parietal bones; the other, much smaller, was almost a clean cut; union had not taken place, and the wounds were suppurating. A poultice was applied, and the patient was placed in a special cell, where he could be constantly watched. In other respects he appeared perfectly well, except that he was pale from loss of blood. I saw him daily until the following Saturday, when the wounds were looking quite healthy. On the next day (Sunday) he began to complain of pain in the right ear and side of the neck and throat, and stiffness of the jaws. In my absence Dr. Sheehy saw him twice on that day, and ordered him aperient medicine, and warm linseed poultices to the neck and throat. On Monday, the 17th, I saw him in the morning, and immediately placed him in the infirmary. He complained of great pain in the right ear, throat, and neck; his teeth were clenched; he was able to swallow and also to speak, and was quite sensible. I applied poultices to the nape of the neck and round the throat, gave him milk and beef-tea, and occasionally small doses of laudanum, with chloric ether and ammonia. In the evening he was much the same. On the following day, the 18th, he was much worse, although he was still able to swallow, and drank a pint of milk; but in the middle of the day violent convulsions came on, with great pain in the epigastrium, the pulse rapid and feeble, and the pupils of the eyes contracted. Linseed poultices, with laudanum, gave some relief; but the convulsions returned at intervals, and he gradually sunk, and died at 12.30 A.M. on the 19th. He remained quite sensible to the last.

I made a post-mortem examination, and found the skull quite uninjured under the large wound; but in the small wound, which was further back, there was a small fracture about three-quarters of an inch in length, without any depression; the membranes of the brain were slightly congested, and there was a slight effusion into the ventricles, and also effusion of blood at the base of the brain under the cerebellum and on the right side of the spinal cord in the first vertebra, where the membranes were slightly inflamed. Judging from the appearance of the wounds, the larger one might have been caused by falling upon bricks, and the smaller one either by a hard blow or by falling on a sharp stone. I am, dear Sir, faithfully yours,

44, Bedford-square, Oct. 9, 1877. W. SMILES, M.D.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed the examination in the Science and Practice of Medicine and received certificates to practise on Oct. 4th:—

Chicken, Rupert Cecil, Nottingham.
Vickerstaff, William Harry, Macclesfield.
Walsh, William Arthur Stephenson, Worcester.

The following gentleman also passed the Primary Professional Examination:—

Brown, Percy, London Hospital.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—The following gentlemen obtained the entrance scholarships, the examination for which was held on the 2nd, 3rd, and 4th instant: 1. Charles Hebbert (Houldsworth £100); 2. H. Walsh (£50); 3. J. J. Pratt (£20).

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—The following gentlemen have been elected: Mr. R. H. S. Spicer, to the Scholarship in Natural Science; Mr. J. B. F. Eminson, to the Exhibition in Natural Science; and Mr. F. H. Butler to the extra Scholarship in Natural Science.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 9th instant, Dr. J. W. Johnston, Inspector-General, in the chair, the sum of £85 was distributed among the various claimants.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.—The annual meeting of this Society was held in the Library of the Newcastle-on-Tyne Infirmary, on Sept. 27th, 1877, Mr. J. B. Morgan, President, in the chair. The report of the committee was a highly satisfactory one, and stated that "during the past session nineteen papers were read, fifty pathological specimens were exhibited, and fifteen patients introduced at the meetings." The number of members now is 161. The following is the list of officers for the ensuing session: President, Mr. G. B. Morgan, Sunderland. Vice-Presidents: Dr. Armstrong, Newcastle; Mr. S. W. Broadbent, South Hetton; Dr. Burnup and Mr. J. Hawthorn, Newcastle. Secretary, Dr. Byrom Bramwell, Newcastle. Committee: Mr. H. E. Armstrong, Dr. Arnison, Mr. Carr, Newcastle; Dr. Denham, Dr. Frain, South Shields; Dr. Eastwood, Dinsdale; Dr. Hume, Dr. Sage, Dr. Philipson, Newcastle.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At a meeting of this corporation held on the 1st inst., the following office-bearers were elected for the ensuing year—namely, Andrew Buchanan, M.D., president; R. Scott Orr, M.D., visitor; John Coats, M.D, treasurer; James Finlayson, M.D., honorary librarian; Hugh Thomson, M.D., vaccinator.—*Councillors:* The President, *ex officio;* the Visitor, *ex officio;* the Treasurer, *ex officio;* J. G. Fleming, M.D.; Henry Muirhead, M.D.; J. D. Maclaren, M.D.; James

Morton, M.D.; Andrew Fergus, M.D.—*Board of Examiners*: R. Scott Orr, M.D., medicine and materia medica; James Dunlop, M.D., clinical surgery; Alexander Patterson, M.D., clinical surgery; P. A. Simpson, M.D., medical jurisprudence; Jas. Dunlop, M.D., surgery and surgical anatomy; Joseph Coats, M.D., physiology; Alexander M. Buchanan, M.D., anatomy; H. C. Cameron, M.D., surgery and surgical anatomy; Eben. Watson, M.D., physiology; J. G. Wilson, M.D., midwifery; Matthew Charteris, M.D., clinical medicine; R. Scott Orr, M.D., clinical medicine; James Morton, M.D., surgery and surgical anatomy; Robert Perry, M.D., chemistry; A. Wood Smith, M.D., medicine and materia medica; H. C. Cameron, M.D., clinical surgery; James Morton, M.D., clinical surgery; William MacEwen, M.D., medical jurisprudence; Alexander Lindsay, M.D., chemistry; James Finlayson, M.D., clinical medicine; J. D. Maclaren, M.D., clinical medicine; R. D. Tannahill, M.D., midwifery; Mr. H. E. Clark, anatomy.—*Examiners in Arts*: James B. Russell, M.D.; John Pirie, M.D.—Alexander Duncan, B.A., secretary and librarian.

THE SMALL-POX EPIDEMIC.—A statement has been issued by the Metropolitan Asylum Managers, showing the amount of work and responsibility cast upon them by the recent epidemic of small pox. The total number of small-pox patients received into the managers' hospitals during the year ending the first week in October was 7333. Lambeth sent 808; Hackney, 733; City of London, 90; Fulham, 73; Greenwich, 125; Holborn, 249; Lewisham, 31; Mile-end, 206; Poplar, 403; St. George's-in-the-East, 137; St. George's, Hanover-square, 157; Bloomsbury, 66; Camberwell, 386; Hampstead, 73; Shoreditch, 151; Chelsea, 148; Islington, 396; Kensington, 287; Bethnal-green, 260; Whitechapel, 169; Woolwich, 35; Strand, 38; Westminster, 56; Wandsworth and Clapham, 384; St. Saviour's, 556; St. Olave's, Bermondsey, 298; Marylebone, 270; Stepney, 219; St. Pancras, 381; and Paddington, 148. The number of fatal cases is not given.

Medical Appointments.

ARMITAGE, W. H., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer of Health for the Over Darwen Urban Sanitary District, at £120 for one year.

ARMSTRONG, L., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Dawlish Urban, the Wolborough Urban, and the Newton Abbot Rural Sanitary Districts, at £400 per annum for two years.

BIRD, P. H., F.R.C.S.E., has been reappointed Medical Officer of Health for the Preston Port Sanitary District for one year.

CAMERON, J. S., M.D., M.R.C.S.E., has been appointed Medical Officer of Health for the Huddersfield Urban Sanitary District, and Medical Attendant to the Hospital for Infectious and Contagious Diseases, vice Pritchett, whose appointment has expired, at £250 and £70 per annum.

CLELAND, J., M.D., L.R.C.S.Ed., has been appointed Professor of Anatomy at the University of Glasgow, vice Thomson, resigned.

DIXON, W., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Eythorne District of the Eastry Union, Kent, vice Long, appointed to the Farnsfield District of the Nottingham Union.

DOUDNEY, E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the New Romney District of the Romney Marsh Union, Kent, vice Baker.

DUNN, G. P., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer and Public Vaccinator for the Romsley District of the Bromsgrove Union for three years.

GAISFORD, M., M.R.C.S.E., has been appointed House-Surgeon to the East Suffolk and Ipswich Hospital, vice Gibbons, resigned.

GIBSON, G. A., M.B., D.Sc., F.G.S., &c., Resident Physician to the Royal Infirmary, has been appointed Junior Demonstrator of Anatomy in the University of Edinburgh.

HINES, C. H., F.R.C.S.Ed., M.R.C.S.E., has been appointed Senior Medical Officer to the York Friendly Societies' Medical Association, at £200 per annum, residence, &c.

JENNINGS, Dr. J. B., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Assistant-Surgeon to the Odd Fellows' Dispensary, Hull.

JONES, D. J., M.B., C.M., has been appointed Assistant Medical Officer to the Somersetshire Lunatic Asylum, Wells, vice Adam, resigned.

JONES, W. D., has been reappointed Medical Officer of Health for the Ruthin Rural Sanitary Authority for twelve months, at a salary of £70.

JOYNES, F. J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the No. 3 District of the Dursley Union, vice Collins, resigned.

LAWSON, J., M.B., L.R.C.S.I. & L.M., has been appointed Medical Officer of Health for the Hebden Bridge Urban, and Todmorden Rural, Sanitary Districts.

LEE, T. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Thame District of the Thame Union, vice Lee, resigned.

LYNDON, G., L.R.C.S.I., L.K.Q.C.P.I. & L.M., has been appointed Medical Attendant to the Royal Irish Constabulary, Bellananagh, co. Cavan, vice O'Reilly, deceased.

MITCHINSON, G., L.K.Q.C.P.I., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Lincolnshire Gaol, Lincoln, vice Broadbent, deceased.

NEALE, J. E., M.R.C.S., has been appointed House-Surgeon to the Westminster Hospital.

O'DEA, P. St. Lawrence, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, &c., for the Oranmore Dispensary District of the Galway Union, vice Hughes, resigned.

SCOTT, J., M.B., C.M., has been appointed Assistant House-Surgeon to the Royal Infirmary, Bristol.

SHEARER, J., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Glenmuick, Aberdeenshire, vice Jack, resigned.

SMITH, J. G., M.B., C.M., has been appointed House-Surgeon to the Royal Infirmary, Bristol.

SMITH, W. R., M.B., has been appointed a Certifying Factory Surgeon for the Sheffield District, vice Arden, deceased.

VERITY, A. R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Abersychan District of the Pontypool Union.

Births, Marriages, and Deaths.

BIRTHS.

PALMER.—On the 8th inst., at Cambray, Cheltenham, the wife of Gascoigne Palmer, Esq., of a son.

TUCK.—On the 2nd inst., at Seaford, Sussex, the wife of Buckmaster Joseph Tuck, M.R.C.S.E., of a daughter.

WILSON.—On the 6th inst., at Penistone, the wife of Arthur C. J. Wilson, M.R.C.S.E., of a son.

MARRIAGES.

HUNTER—GRIGOR.—On the 3rd inst., at St. Philip's, Dalston, London, by the Rev. Walter Bradley, Robert Hope Alston Hunter, Surgeon, third son of the late Robert Hope Alston Hunter, First Class Staff-Surgeon H.M. Forces, to Agnes Gray Grigor, third daughter of James Grigor, Esq., Solicitor, of Cromarty, N.B.

RICHARDS—WILSON.—On the 4th inst., at All Saints, Bromsgrove, by the Rev. and Hon. Adolphus Massey, J. Peeke Richards, Medical Superintendent Middlesex County Asylum, Hanwell, to Harriott Wilson, younger daughter of John Wilson, Esq., of Greenwich.

DEATHS.

CLARKE.—On the 4th inst., at Ormond-road, Rathmines, Dublin, Francis Clarke, M.B., F.R.C.P.I., aged 68.

CROMPTON.—On the 4th inst., at Bolton, Harold Crompton, L.R.C.P.Ed., aged 30.

DONOVAN.—On the 30th ult., Daniel Donovan, M.D., L.R.C.S.Ed., aged 69.

GRAMMER.—On the 29th ult., at Calne, Samuel Richard Grammer, M.R.C.S.E., aged 53.

KNIPE.—On the 3rd inst., at Morehampton-road, Dublin, John Copeland Knipe, M.R.C.S.E., late Surgeon-Major 36th Regiment.

LAWSON.—On the 4th inst., Henry Lawson, M.D., Assistant-Physician to St. Mary's Hospital, and Lecturer on Physiology, aged 36.

MATHEW.—On the 7th ult., at Mussoorie, Bengal, Charles Bartholomew Mathew, L.R.C.S.I., Surgeon-Major, Army.

PURCELL.—On the 20th August, at Yeddo, Japan, Theobald Andrew Purcell, L.R.C.P.Ed., Surgeon-Major, Army, Principal Medical Officer to the Department of Public Works of the Imperial Japanese Government.

ROBERTSON.—On the 1st August, at Aden, Adam Robertson, M.D., Staff-Surgeon, R.N., aged 39.

SHAW.—On the 3rd August, at Bishopwearmouth, Jonathan Shaw, M.R.C.S.E., aged 59.

TIMM.—On the 8th inst., at Torquay, Charles Timm, M.D., aged 78.

WILLANS.—On the 3rd inst., at Cootehill, co. Cavan, Thomas Henry Willans, L.R.C.P.Ed., aged 44.

WOOD.—On the 5th inst., at Sowerby Bridge, John George Wood, L.F.P.S.G., aged 40.

[N.B.—*A fee of 1s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Mr. R. J. Godlee: An Atlas of Human Anatomy. Part I.
The Medical Temperance Journal. October.
The Journal of Mental Science. October.
Cassell's History of India. Part XXII.
R. S. Ball: Astronomy.
The Veterinary Journal. October.
The Microscopical Journal. October.
The Veterinarian. October.
The Monthly Homœopathic Review. October.
The British and Foreign Medico-Chirurgical Review. October.
The Animal World. October.
The Analyst. October.
Mr. W. J. Fleming: Motions of the Brain.
Dr. R. Liveing: The Treatment of Skin Diseases.
The Popular Science Review. October.
A. S. Wilkins: Roman Antiquities.
Dr. L. A. Sayre: Spinal Disease and Spinal Curvature.
E. B. Aveling: Physiological Tables.
F. Mason: On Harelip and Cleft Palate.
The Quarterly Journal of Microscopical Science. October.
Dr. Ferber's Model Diagram of the Organs in the Thorax.
R. Wormell on Thermodynamics.
The Customs Gazette. No. XXXIII. January—March, 1877.
The Practitioner. October.
Sir T. Sinclair: A Defence of Russia.
Dr. S. W. Mitchell: Nurse and Patient and Camp Cure.

Notes, Short Comments, and Answers to Correspondents.

SANITARY SCIENCE AFLOAT.

DR. HUGO SENTFLEBEN has done good service to the mercantile marine of this country by giving, in the current number of the *Nautical Magazine*, a circumstantial account of a voyage in the *Norseman*, a steamship employed in the West Indies and the Brazils on cattle service. It is shown in this article that the crews and others on board these cattle ships are subject to dangers other than those dependent on climate, and incidental to all who go down to the sea in ships. Most of our readers are probably aware that the coils of cable are stored on board ship in immense tanks, which occupy a considerable portion of the area of the hold. The cables are kept covered with water, so as to prevent the cable wire (consisting of india-rubber or gutta-percha) from softening and melting. As, however, the water is always more or less impregnated with organic matters, chemical action occurs with the iron wire, and the results are the formation and dispersion throughout the ship of sulphuretted and phosphuretted hydrogen. This state of things is intensified by the presence of small molluscs, numbers of which are found fixed to the cable when it is hoisted from its marine resting-place, "the fibre of the hemp becoming soaked with the gelatinous contents of the shells, which are rich in phosphorus, the hemp itself containing sulphur. Although the water in the tanks is changed tolerably often, these gases sometimes accumulated to so great an extent as to cause the white painted ceilings of the saloon to become completely blackened in one night with a deposit of sulphuretted lead. As all the officers and crew slept immediately above these tanks, with a thermometer varying from 80° to 90° F., the consequences were naturally disastrous, and frequent cases of sickness occurred. As this condition of things (as regards the cable tanks) appears inevitable in all vessels employed in this service, Dr. Sentfleben recommends the construction of special ships for the purpose. We have not sufficient space to explain the proposed arrangements in detail; but the principle of the plan (sectional sketches of which are given) appears to be—(1) to berth all officers and crew in deck-houses on a flush-decked ship, and ventilate them on the "ridge" plan; (2) to keep the main deck clear of everything, except the engine space and pumping apparatus, so as to leave an interspace between the crew and the cable tanks; (3) to ventilate the ship thoroughly in accordance with well-known and well-approved plans, one or other of which are adopted in the Anglo-Indian troopships, as well as several other good-class mail steamers. We commend Dr. Sentfleben's article to the attention of all interested in sanitary science afloat.

Mr. James Connelly should propose his query to a practitioner.

IS TYPHOID FEVER INFECTIOUS?

To the Editor of THE LANCET.

SIR,—My apology to you, and to the many eminent members of the medical profession who contribute to your columns, for asking the above question, arises from the following facts:—A few years ago a cottage hospital was established here, and its first rule says, "That no infectious or contagious disease shall be admitted"; yet last week the leading medical gentleman of our town, and the consulting surgeon to the hospital, took upon himself the responsibility of having a very serious case of typhoid fever admitted to the institution, and the patient was placed in a bed in the same ward with other patients. So serious indeed was the case that the poor fellow, who was only admitted on the Wednesday, died early on Saturday morning.

Of course, Sir, the question naturally has arisen, How came the case to be admitted?—the Committee, and indeed I may say the whole town, being of opinion that under the first rule such a case was clearly inadmissible. But no, the medical gentleman referred to, at a special meeting of the Committee to consider the question, said he was of opinion that typhoid fever was not infectious, and that many members of the medical profession were of his way of thinking.

Sir, the sad experience of very many of us here points to a different conclusion; and, as one who has cause to remember the mischief engendered by this dangerous disease, I ask through your columns what the medical profession think of the case alluded to, and whether there are many of your readers who in their practice contend that typhoid fever is not infectious? If the disease is not infectious, what need is there for the vigilant measures adopted by the sanitary authorities all over the country against the spread of typhoid fever and such like malignant diseases, or for the immediate passing of a resolution by the Committee of the cottage hospital that in their opinion "typhoid fever is infectious"?

In conclusion, I may remark that one of the honorary surgeons of this hospital has only recently recovered from an attack of typhoid fever, undoubtedly and admittedly caught from attending a patient living in a cottage in the town.

Hoping these few lines may be the means of ventilating this important matter in your columns,

I remain, Sir, your obedient servant,

Cirencester, Sept. 18th, 1877. A SUFFERER FROM TYPHOID.

Nil Desperandum.—Nice and Monaco are good places; but there are many others. The average cost at hotels per day for each person amounts to from 8*s.* to 10*s.*, and at lodgings somewhat less. That tariff does not, of course, include much in the way of alcohol.

Q. has not enclosed his card, and we cannot answer an anonymous question of the nature he proposes.

Chirurgus.—Dr. Marion Sims is now practising in Paris.

MR. JAMES GRAHAM'S BEQUEST TO MEDICAL CHARITIES.

THE executors of the will of Mr. James Graham, in the exercise of the power and discretion vested in them by his will, have made a first distribution out of the "residue" of his personal estate to a large number of charities, among which are the following:—£2500 to the London Hospital; £2000 each to the Charing-cross Hospital, Royal Free Hospital, St. George's Hospital, St. Luke's Hospital for Lunatics, British Home for Incurables, King's College Hospital, Asylum for Idiots, Victoria Hospital for Children, and Brompton Hospital for Consumption; £1000 each to the Royal London Ophthalmic Hospital, Royal Hospital for Diseases of the Chest, Seamen's Hospital at Greenwich, National Hospital for Consumption at Ventnor, City of London Hospital for Diseases of the Chest, Poplar Hospital for Accidents, East London Hospital for Children and Dispensary for Women, Great Northern Hospital, North-Eastern Hospital for Children, St. Mary's Hospital, Samaritan Free Hospital for Women and Children, London Fever Hospital, North London Consumption Hospital, Westminster Hospital, University College Hospital, West London Hospital, Metropolitan Free Hospital, Royal Sea-bathing Infirmary, Royal Hospital for Incurables, and Cancer Hospital; £500 each to the City of London Lying-in Hospital, Central London Ophthalmic Hospital, Evelina Hospital for Sick Children, Hospital for Diseases of the Skin, Lock Hospital and Asylum, Metropolitan Convalescent Institution, Mrs. Gladstone's Free Convalescent Home, St. Mark's Hospital, Public Dispensary in Stanhope-street, St. Mary's Hospital, Seaside Convalescent Hospital at Seaford, Hospital for Diseases of the Throat, Hospital for Epilepsy and Paralysis, Surgical Aid Society, City of London Truss Society, National Hospital for the Paralysed and Epileptic, Hospital for Women, Chelsea Hospital for Women, and Westminster Training School and Home for Nurses; £250 each to the Eastern Dispensary, Royal South London Ophthalmic Hospital, New Hospital for Women, Royal Maternity Charity, Royal Orthopædic Hospital, Metropolitan and National Nursing Association, and Rose Charity Fund of the Brompton Hospital for Consumption.

Nemo.—No case of the kind has been placed on record.

CURIOUS DEVELOPMENT OF PUNGENT AMMONIACAL GAS.

To the Editor of THE LANCET.

SIR,—Mr. Maw's letter in to-day's LANCET, under the above title, is a curious illustration of the old adage, that "one half of the world does not know how the other half lives." In the county of Orkney and Shetland the skate is a favourite article of diet with fishermen and the amphibious cottar class, who live partly by fishing and partly by agriculture. Any visitor to the smaller islands of the group cannot have failed to observe one or more of these fish hanging on the southern aspect of some of the cottage walls in a more or less "jerked" condition; indeed it is rarely or ever eaten until somewhat dry and stale, when on being cooked it emits the pungent ammoniacal odour alluded to. So far from its being injurious, as Mr. Maw would seem to fear, I have no hesitation in saying that there is nowhere a hardier or more intelligent race than those ichthyophagic descendants of the Vykings; but it is worthy of note that a very large percentage of them suffer from dyspepsia, or, to quote their own phrase, "a weak stomach." During the digestive process the gas evolved rushes out at the nostrils, and gives rise to such violent eructations that, were it procurable, would doubtless make it in great demand among the lower orders in Russia, who delight in publicly testifying to the hospitality of their friends in this flatulent fashion.

I am, Sir, yours truly,

Hackney, Oct. 6th, 1877. CHAS. DAVIDSON.

To the Editor of THE LANCET.

SIR,—The presence of ammoniacal gas in skate, as narrated by your correspondent of last week, was due to the decomposition of urea, which has been proved by Frerichs and Städeler to be a normal constituent of the tissues of all the *plagiostomata*, and which is especially abundant in the rays; *Raia Batis* (the skate) containing large quantities of urea in every part of body. By prolonged keeping and subsequent application of heat, the urea would be changed into ammonia. Frerichs has found urea present in abundance in the water in which these fish have been boiled. His interesting researches, which will well repay perusal, were published in 1860 in the *Journ. für Prakt. Chimie*, No. 76, p. 58.

Yours truly,

Lynn, Oct. 9th, 1877. JOHN LOWE, M.D.

Mr. E. B. Beckitt, Mr. Alex. D. Pithie, and others, should apply to the Secretary of the Stafford House Committee, to Colonel Loyd Lindsay, or to the Secretary of the Society for Aid to the Sick and Wounded, 14, Cockspur-street, S.W.

Par Vagum Magnum.—From time immemorial graduates of Universities have always taken precedence of persons holding diplomas from examining bodies.

Z. O. B.—1. It would be improper.—2. Yes.

TREATMENT OF ERYSIPELAS.

To the Editor of THE LANCET.

SIR,—Apropos of the letters on this subject in your columns, I would remark that a case which occurred in my practice was successfully treated with the local application of belladonna ointment, and the administration of frequent doses of tincture of aconite (the treatment recommended by Ringer). I also gave iron, which is, doubtless, necessary in all cases of erysipelas. The convalescence was not very rapid, but the child perfectly recovered. I can sympathise with any practitioner who has a case of this nature on his hands.

Yours faithfully,

October, 1837. A PUBLIC VACCINATOR.

To the Editor of THE LANCET.

SIR,—I would suggest to your correspondent, "Pro Bono Publico," to consult Ringer's work on Therapeutics, under the article Aconite. If my memory serves, he specially recommends half-minim doses of tincture of aconite every two hours in erysipelas after vaccination.

Your obedient servant,

Cambridge, Oct. 4th, 1877. J. T. BECK.

POISONING BY CHEESE.

SEVERAL families in Michigan having suffered from symptoms of poisoning which it is believed were attributable to the ingestion of cheese, Dr. Kedzie was appointed by the State Board of Health to examine and report upon the circumstances attending the event. No mineral poison was found in the cheese to which the evil effects were thought to be due, and Dr. Kedzie concluded that the toxic principle was of organic origin, the result either of diseased milk, chemical decomposition, or bad rennet. As Dr. Kedzie is authorised to visit cheese factories and examine the matter thoroughly, some interesting particulars relating to this important article of diet may probably be looked for.

Mr. Thos. Davies.—Consult a respectable practitioner, and avoid advertisers of every description.

TREATMENT OF BURNS.

To the Editor of THE LANCET.

SIR,—While reading some letters which lately appeared in your columns on the efficacy of a saturated solution of bicarbonate of soda as an application to burns and scalds, it occurred to me that the good effects of such a solution might be greatly increased by the addition to it of that powerful non-irritant antiseptic, salicylic acid, in the proportion of, say, five grains to the ounce; or the solution of bicarbonate of soda might very possibly be most advantageously replaced by a saturated solution of the officinal salicylate of soda. In this way, whatever efficacy lies in the soda salt would be, I take it, largely increased by the addition of a non-irritant, and yet powerful, antiseptic, the beneficial application of which to wounds and sores, where a cicatrising action is required, has lately been forcibly pointed out by Dr. Ogilvie Will, of Aberdeen.

Hoping my suggestion may be carried out by some of your readers, in case it should commend itself to their minds,

I am, Sir, yours obediently,

RICHARD H. QUILL, M.D.

Island Bridge Barracks, Dublin, Oct. 8th, 1877.

THE PENGE CASE.

To the Editor of THE LANCET.

SIR,—To prevent any misunderstanding in reference to some remarks made by me at the Cannon-street Hotel, and repeated in *The Times* of this morning, I should be much obliged if you would insert this letter.

I stated that when the verdict in the "Penge mystery" case was delivered, THE LANCET—the great organ of the medical profession—agreed with the decision of the jury, but subsequently reconsidered their opinion, and had undertaken to prepare a petition for presentation to the Crown, praying for a commutation of the sentence.

I am, Sir, your obedient servant,

Cavendish-square, W., Oct. 10th, 1877. L. S. FORBES WINSLOW.

*** Our correspondent has evidently misread our articles. He seems incapable of recognising a judicial expression of *medical* opinion in the midst of undiscriminating popular excitement.—ED. L.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Alderson, London; Mr. Maunder, London; Dr. Greenhow, London; Dr. Murchison, London; Dr. Chambers, London; Dr. Morell Mackenzie, London; Mr. Bramwell, Newcastle-on-Tyne; Mr. Sergeant, Bolton; Mr. Verity, Aberayehan; Dr. Forbes Winslow; Dr. Garson, Edinburgh; Mr. Jones, Wells; Mr. Donovan, Cork; Mr. Hutchins, Brooklyn, U.S.A.; Mr. Dow, London; Mr. Lithgow, Wisbeach; Dr. Allbutt, Leeds; Mr. Davidson, Hackney; Mr. Turnbull, Liverpool; Dr. Carpenter, London; Mr. Dale, Scarborough; Dr. Bantock, London; Mr. S. Wells, London; Dr. Cant, Oakland, California; Mr. Thomson; Mr. Connelly; Mr. Neale, London; Mr. Joll, London; Mr. Farley, London; Mr. Pyle, Amesbury; Mr. Rage, Hull; Mr. Hitchcock, Lewisham; Mr. Douglas, Edinburgh; Mr. Reckitt, Leeds; Dr. Barnard, Gulgong, New South Wales; Mr. Beatty, Seaham; Dr. Quill, Dublin; Dr. Scott, Southampton; Mr. Bowman, Newcastle-on-Tyne; Mr. Beck, Cambridge; Mr. Anderson, Chapel-en-le-Frith; Dr. Cock, London; Dr. Shepherd, London; Mr. Porter; Mr. Wright; Dr. Lowe, Lynn; Dr. Jones, Ruthin; Mr. Grant, Birmingham; Dr. Alexander, Bradford; Dr. Coghill, Ventnor; Mr. Groves; Mr. Cookson, Halifax; Dr. Sheen, Cardiff; Dr. Smiles; Dr. Highet, Troon; Dr. Russell, Glasgow; Mr. Callaway; Dr. Flowers; Dr. Dickson, Buxton; Mr. Wilton; Dr. Jones, Portland, U.S.; Mr. Davies, Carmarthen; Dr. FitzGerald; Dr. Munro, Kilmarnock; Mr. Ruckley, High Wickham; Mr. Grant; Mr. Force; Dr. Pithie, Holytown; Mr. Waylen, Deptford; Dr. Hamill, Worksop; Messrs. King and Co.; A Public Vaccinator; H. H.; T. M. A.; Naval Medical Supplemental Fund; Par Vagum Magnum; J. V. R. C.; Medicus, Cannock; Galen; Z. O. B.; Matron; C. K. R.; Medicus, Edinburgh; Nil Desperandum; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Deighton, Clapham; Mr. Jarman, Huddersfield; Mr. Shripton, London; Mr. Coward, Huddersfield; Mr. Twining, Urana, New South Wales; Mr. Baugham, Bristol; Mr. Sutcliffe, Burnley; Mr. Chawner, Kensington; Dr. Yeoman, Whitby; Mr. Harrison; Messrs. Hartill; Mr. Rutherford; Mr. Peters; Dr. Jones, Chesterfield; Mr. Hutchinson; Mr. Brooks; Dr. Redmond, Portadown; Dr. Lyle; Mr. Wood; Dr. Duke; Dr. Branson, Sheffield; Q. M. M., Dublin; Practitioner; Pax, City-road; Obstetrician; J. W.; M. B. M.; T. F. F.; C. T. J., Whitby; Medicus, York; T. M. A.; S. D., Burnley; A. H. C.; Medicus, Wicklow; A.; X. Y. Z.; A. B.; M. N. R.; A. W.; S. W., Lincoln; W. B., Barnett; Veritas, Wragby; Medicus, Grimsby; ——, Sheffield; F. W.; Box; R. P., Preston; B. S.; E. A. L. S., Fowey; J. F. P.; Omega, Bristol; Delta E.; Medicus.

Scotsman, Birmingham Daily Gazette, Home Chronicler, Bradford Chronicle, Bradford Daily Telegraph, Bolton Chronicle, Dublin Express, Glasgow News, Blackburn Standard, Daily Courier, Hornet, and *Wolverhampton Chronicle* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, OCT. 11TH, 1877.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Oct. 5	30·43	N.E.	46	49	86	64	43	...	Foggy
„ 6	30·66	N.E.	45	48	84	64	42	...	Foggy
„ 7	30·52	N NW	44	46	62	62	38	...	Foggy
„ 8	30·17	N.E.	49	53	88	56	43	...	Cloudy
„ 9	30·33	N.E.	44	48	79	55	41	...	Fine
„ 10	30·18	N.W.	42	43	63	54	39	...	Foggy
„ 11	29·92	N.W.	46	50	...	...	41	0·22	Cloudy

Medical Diary for the ensuing Week.

Monday, Oct. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8½ P.M. A short Address by the President, Dr. George Buchanan.—Dr. P. M. Braidwood, of Birkenhead, "On Pyæmia" (Epitome of Fothergillian Essay).

Tuesday, Oct. 16.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following Specimens will be exhibited:—Dr. Wickham Legg: (1) Aneurism of the Left Ventricle of the Heart; (2) Aneurism of the Anterior communicating Artery of the Brain; (3) Free Balls of Fibrin in the Left Auricle, Mitral Stenosis; (4) Complete Obliteration of the Aorta. Dr. P. Irvine: (1) Destructive Pneumonia from Pressure on Bronchus; (2) Two Cases of Abdominal Aneurism. Mr. Christopher Heath: Conclusion of Case of Cystine Calculi. Dr. Barlow: Aneurism of the Anterior Cerebral Artery. And other Specimens.

Wednesday, Oct. 17.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Oct. 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HARVEIAN SOCIETY. — 8 P.M. Dr. William Squire, "On Cases of Acute Pneumonia in Children."

Friday, Oct. 19.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

MEDICAL MICROSCOPICAL SOCIETY.—8 P.M. Ordinary Meeting.

Saturday, Oct. 20.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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